THE

Erasmus Wilson Lectures

ON

EVOLUTION IN PATHOLOGY.

Delivered at the Royal College of Surgeons.

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LECTURE I.

CORRELATION AND ITS EFFECTS.

MR. PRESIDENT AND GENTLEMEN,—Darwin's greatest disciple in this country, Professor Huxley, has enunciated the principles of evolution in the form of three laws. 1. There has been excess of development of some parts in relation to others. 2. Certain parts have undergone complete or partial suppression. 3. Certain parts which were originally distinct have coalesced. Huxley uses the term "law" as a general statement of facts ascertained by observation. A good example for the illustration of these laws is the female generative organs. Many forms—e.g., the Cirrepedia, land mollusca, &c.—are provided with male and female organs constituting hermaphroditism. Ascending the scale of animated beings, we find that although every animal possesses at some period of embryonic life male and female organs in a potential form, yet normally one set, either those peculiar to the male or those peculiar to the female sex, gain the ascendancy. This serves as an illustration of the first law—that is, there has been an excess of development. Associated with this excess we find suppression and more or less complete disappearance of the opposite set of organs. Thus we obtain an excellent illustration of the second law. In the Icthyopsida (fish and batrachians) and the Sauropsida (reptiles and birds) the female generative ducts are for the most part represented by oviducts (Müllerian), quite separate, although in birds one usually disappears. In mammals the representatives of the oviducts fuse in the middle line through a greater or lesser extent, and constitute a median uterus. This illustrates the third law, or coalescence of parts originally distinct.

My object in these lectures is to endeavour to show that the structural aberrations of animal bodies of which pathological anatomy takes cognisance follow the same laws, which, when expressed in the terminology peculiar to that science, may be reduced to two:—1. Correlation: (*a*) hypertrophy; (*b*) atrophy. 2. Coalescence.

Correlation leads to abrogation of functions and gives rise to rudiments; these rudiments or remnants may serve as the germs of origin of many forms of cysts and neoplasms. To anyone who has devoted serious attention to the matter it must be evident that the term hypertrophy has come to be used by pathologists, physicians, and surgeons in an exceedingly indefinite manner, to include almost any kind of enlargement of the organs, limbs, or bones of the body, without that careful attention necessary to discriminate between simple overgrowth, functional enlargement, or increased size, the result of adventitious elements in the part affected. True hypertrophy may be defined as "the enlargement of an organ beyond its usual limits as the result of increased function, or of some unusual condition of the corresponding or correlated organ." Before proceeding to discuss the question, it will be well to illustrate the definition with an example. Every known vertebrate normally possesses two kidneys, a right and a left one. In the case of the fowl whose left kidney is here shown, the right one had, from some cause or other, entirely disappeared. Nothing but the ureter remained to inform us of the previous existence of the associated kidney. Such a case as this is by no means rare; I have seen it in five instances in man, also in sheep, oxen, horses, and twice in birds. The important fact in these cases is this. In all instances of single kidney the size and weight of the persistent organ far exceeds the normal, and in the majority of instances is double the usual size. The kidney, in consequence of the loss of its fellow, has had to perform twice the amount of work usually required of it, and has doubled its bulk in consequence of this increased functional activity. Similar changes have been described in the lung, in the testicle, and other organs.

Let us now consider some examples of simple overgrowth as compared with true hypertrophy. Dermal organs supply us with many examples. In old bedridden females it is no unusual event to find the nail of the great toe enormously overgrown, and in texture as in appearance resembling a ram's horn. In animals living in confinement it is no unusual thing to find the hoofs three times their usual length, or the claws of birds enormously elongated. The beaks of parrots, peacocks, pheasants, partridges, &c., are extremely liable to this abnormal growth, on account of deficiency of usage. I have seen one of the claws of the two-toed sloth describe a complete circle. The same kind of excessive growth may also be studied in those mammals whose teeth grow from persistent pulps. From accidental displacement of the teeth in their sockets, or loss of antagonism from fracture of a tooth or of the jaw, the unaffected tooth or teeth will grow unduly, in some instances re-entering its own pulp chamber, or even describe two circles and a half. All such cases as these are loosely alluded to as examples of hypertrophy, but as a matter of fact they should be regarded as instances of simple overgrowth. These cases will occupy our attention later.

Bones are exceedingly liable to enlarge, and it is necessary to exhibit extreme caution in determining whether a given specimen is an example of hypertrophy or simple overgrowth, or enlarged as the result of inflammation. Very many cases described as hypertrophy are no more worthy of the designation than the enlarged sural muscles characteristic of that remarkable disease, pseudo-hypertrophic paralysis. The following will serve as a type specimen of what I consider true hypertrophy. An old man fractured his tibia, and, though he lived for ten years afterwards, the fracture never united. When he died the body came under my observation, and on dissection it was found that so far as actual thickness of the shaft was concerned, the fibula opposite the fracture had the best of it, for the tibia in the neighbourhood of the injury had undergone atrophy, but the fibula had hypertrophied, exceeding its normal thickness two and a half times.

In no structures of the body can hypertrophy be studied better than in muscular tissue, whether of the voluntary, involuntary, or cardiac variety. With regard to the heart, illustrative specimens are to be found in every pathological museum of any pretensions. The urinary bladder, when stricture of the urethra or calculus impede the free flow of urine, submits to this salutary process. The same changes may be seen in the gall-bladder; and the various stages of hypertrophy may be traced with great precision in that remarkable mill of many birds, the gizzard.

Corns are interesting examples of hypertrophy resulting from intermittent pressure, and their anatomy is well known. There are one or two varieties of epidermal thickening which occur in animals, well worthy a few moments' notice. In some monkeys, especially the group Cynomorphæ, which includes the baboons and macaque monkeys, there exists over each tuber ischii a naked pad of dense callous skin known as the ischial tuberosities, upon which the body rests when in a sitting posture. Now, a corn upon the hand or foot is a pathological production beyond dispute; ischial callosities are in structure as well as in function, corns. Ischial callosities differ from corns only in the fact that they are inherited; but, as I shall take occasion to show later on, pathological defects may be inherited as well as any other peculiarity, and hence the view is forced upon me that ischial callosities are pathological productions which have been transmitted so as to become race peculiarities. This opinion is materially strengthened by the fact that dogs, cats, and other carnivora possess five corns in the shape of callous pads on each of their paws, and under the influence of spinal cord lesions these callous pads may become the seat of a perforating ulcer.

Up to this point, we have chiefly devoted our time in indicating the points which guide us in distinguishing simple overgrowth from true hypertrophy; we must now consider the relation, often of the most intimate kind, which exists between hypertrophy and atrophy. It is a thoroughly established physiological fact that those organs which are

in most constant demand are richly supplied with blood; hence function and blood-supply are inseparably united in producing hypertrophy. This was well illustrated in the case of the kidney first considered; the right one having disappeared, the work of purifying the blood has now to be performed by one kidney, which, in consequence of increased work and increased blood-supply, hypertrophies to meet the requirements of the organism. Thus there has been a diversion of the nutrient stream, and this is largely brought about by the extreme plasticity of the arteries. Coincident with the enlargement of an organ, the nutrient arteries undergo commensurate development, and lead still further to a diversion of the nutrient stream, which in many instances is detrimental to some other organ. We all bear in our legs a striking example of the truth of this statement. In man the tibia as compared with the fibula by weight is as four to one; if sections be made of the leg of a fœtus at the third month, it will be seen that the transverse section of the fibula is not very much smaller than a corresponding section of the shaft of the tibia. If we examine the legs of menobranchus, who simply uses its legs as paddles, we find the two bones of equal thickness; but when the water animals began to take to the land, the weight of the body was far more conveniently transmitted to the ground by one bone than two, the increased function led to increased blood-supply, and the tibia grew in size—in fact, hypertrophied. The hypertrophy of the tibia, by causing diversion of the blood-stream, leads to atrophy of the fibula—at least, that is how my study of the question leads me to decipher the matter. Nevertheless, so truly does the fibula obey the great law of "heredity," that in the fœtus it does its best to indicate to thoughtful minds its former eminence. We must also remember that in aquatic mammalia the fibula is often no mean rival of the tibia. The relation which exists between hypertrophy of one organ and the atrophy of some associated organ may be conveniently termed "correlation;" and I shall now adduce evidence in support of an opinion that the division of animals into those that are males and females is a consequence of this remarkable law.

Many anatomists are of opinion that hermaphroditism is the primitive condition of the sexual organs. Hermaphrodites are found in every group of the animal kingdom, but, except in some of the lowest forms, self-fertilisation is wholly exceptional. Concerning this matter Darwin makes the following observation: "Turning for a brief space to animals, various terrestrial species are hermaphrodites, such as land mollusca and earth-worms; but these all pair. As yet I have not found a single terrestrial animal which can fertilise itself." The rule in hermaphrodites appears to be this—the male organs in one animal are used to impregnate the female organs of another, or *vice versâ*. From this arrangement it would easily come to pass that if one animal used the male portions of its reproductive organs more freely than the female parts they would, as a result of increased function, hypertrophy. In the first portion of this lecture I emphasised the fact that any marked degree of hypertrophy in one organ, nearly always leads to dwarfing of the correlated organ or set of organs; hence, in the example considered the female portions of the hermaphroditic organs remain dwarfed or *in statu quo*. This peculiarity would in the natural course of events be transmitted to the offspring, until at last the differentiation attains such a high degree that unless hypertrophy of one set of organs occurs in each individual propagation is impeded. Evidence on this point is afforded by the ontogeny of any mammal. Whilst the two sets of reproductive organs, male and female, up to a certain point maintain the same degree of growth, it is impossible to determine the sex of the embryo. As soon as one set begins to enlarge at a greater rate than the other the sex becomes pronounced. The remaining organs may eventually disappear or exist in such a rudimentary condition as to be discerned only by the most diligent search. In the invertebrate form Myzostomum, which occurs parasitic on the arms of feather-stars, the majority are hermaphrodite. It has recently been discovered by Dr. von Graaf, whilst working over the *Challenger* Myzostomida, that in certain species which occur in pairs in single cysts, one would have the male organs only functional, the other the female, and it is possible to trace every stage from typical hermaphrodites up to forms where the individual may be classed as a male or a female. Somewhat analogous conditions were detected by Darwin in the case of the Barnacles, but the conditions in these animals are even more remarkable than in the Myzostomida, for the males in this case are minute animals attached to the female, and often difficult of detection. In these complemental males the entire organism is modified for sexual function, for, as Darwin describes it, there is no mouth, no stomach, no thorax, no abdomen, no appendages, no limbs of any kind, yet all these parts are represented in the female. It seems to be simply a bag of spermatozoa, furnished with a few muscles, an eye, the pupal antennæ, and a proboscis-formed penis, which, when uncoiled, is equal to eight or nine times the length of the animal! Darwin's observations have recently been confirmed by Prof. Hoek's observations on the Cirripeds collected by the *Challenger*.

Among mammals, the most striking examples of the peculiar value of hypertrophy are the curious malformed generative organs which occur in the cattle known as "free-martins." Hunter carefully investigated the condition of the reproductive organs in these cases; and the valuable dissections he made, now in the Hunterian Museum, are striking monuments of his investigations in this matter. Careful comparison of the detailed descriptions of the dissections of these malformations, and similar cases in sheep and goats which have come under my observation, show most conclusively that in these cases we have to deal, not with any one malformation common to all examples of free-martins, but rather with instances in which both sets of organs have attempted to attain a functional condition, with the result that both have failed to reach it. In some cases the Wolffian ducts have advanced many stages towards making a fairly complete set of efferent ducts for the testicles, and the calf approaches somewhat to a bull calf. In other instances the Müllerian ducts have made greatest progress, and a diminutive uterus can be made out, and in this case the calf most resembles a cow calf. Between these extremes there is every gradation and variation. Similar cases occur in fishes, reptiles, amphibians, birds, &c. I have seen many cases, and numberless instances have been recorded out of curiosity. They show most conclusively how impossible it is for both sets of reproductive organs to attain a functional condition in the same individual. Hypertrophy of one set must arise, and establish pre-eminence over the other.

The facts on which the argument rests that hypertrophy is one of the causes of division of sexes may be summarised as follows:—1. In the lowest forms of animal life hermaphroditism is the prevailing condition. 2. Cross-fertilisation in hermaphrodites is the rule, and may, as in some of the Myzostomida, lead to a division into sexes within the limits of a single group. 3. Sporadic cases of adult hermaphroditism are far more common in the lowest forms of life. 4. If in mammals both sets of organs grow concurrently, the individual is sterile. 5. Both sets of organs grow equally to a definite period in embryonic life. 6. Reproduction in vertebrata, so far as is known, is impossible unless hypertrophy of one set of organs occur.

Among other remarkable examples of the wonderful correlation which exists between hypertrophy and atrophy must be mentioned the disappearance of gills in all forms above the Ichthyopsida (fish and amphibia). Balfour has pointed out that the allantois can be regarded in no other light than that of an enormously hypertrophied urinary bladder, which, having become a vascular sac, assumed the function of respiration in the embryo. Hypertrophy of one organ or set of organs leads invariably to atrophy of some other organ. Before the work of embryonic respiration was performed by the allantois, many and various contrivances existed for the performance of this important function—*e.g.*, by means of external gills, the tail, and vascular adhesions of the yelk sac; but when once a functional allantois appears on the scene, all these methods are rendered obsolete, and gills for ever disappear.

It is to be hoped that the examples of what should be considered as hypertrophy, as compared with simple overgrowth, have been sufficiently convincing to impress upon my audience the importance of the distinction. Viewed in this light, hypertrophy shows itself to be a process of extreme beauty, utility, and interest, especially so when we reflect that the same process which enables one kidney to recompense the organism for the loss of its fellow is only an instance of the method by which the tibia has outgrown the fibula. The disappearance of gills in all forms of vertebrates above Ichthyopsida (fish and batrachians) has been brought about by the allantois. The division of reproductive labour, the institution of sexes, and many other equally important results, are the effects of the

indisputable correlation which exists between hypertrophy and atrophy.

Let us now proceed to consider certain examples of simple overgrowth, which appear to have been transmitted so as at length to become race characters. In no structure is this so admirably studied as in the teeth of mammals. I have already referred to those instances of teeth which grow from persistent pulp, and from lack of antagonism occasionally exceed their normal dimensions many times, describe circles, re-enter their own pulp chamber, or even penetrate the skull of their owner and bring about death. One of the most remarkable forms of dentition among mammals is that of the babirussa. The extraordinary canines of this animal have afforded plenty of scope to imaginative minds to account for their strange mode of growth. These teeth grow from persistent pulps, and from some cause or other the upper and lower canines failed to antagonise each other, and in consequence became enormously elongated. This abnormality frequently recurring, the peculiarity became transmitted to the offspring, eventually becoming perpetuated as a common feature in the males of this particular species. This isolated case does not carry much weight, but it must be remembered that in all members of the pig family, the common boar, the peccary, the wart hogs, the hippopotamus, as well as the babirussa, the canines have a great tendency to overgrowth and to describe circles. Thus in the wild boar the upper canine is slightly curved; in the wart hog its curve is very extensive, and clears for some distance the upper lip; whilst in the babirussa the curve is so exaggerated as to *pierce* the upper lip. Hence the careful consideration of these facts forces me to the conclusion that these peculiar canines were brought about in the first place as an example of overgrowth due to loss of antagonism, and the defect has been transmitted to the offspring. The remarkable teeth of the mesoplodon, the narwhal, and other of the cetacea are probably examples of the same process. [Lastly, when considering hypertrophy, it was shown that this process led to dwarfing of other organs associated with the enlarging organ, in that it led to diversion of the nutrient fluid.] This is well shown in the teeth; for in all cases the teeth which are immediately adjacent to these overgrown examples are, as a rule, the smallest functional teeth possessed by the animal, and in very many cases they fall out early, and in some instances are suppressed whilst yet embryonic, and never appear above the gums.

Introductory Lecture

TO THE COURSE OF

CLINICAL THERAPEUTICS.

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(*Concluded from page 238.*)

ANOTHER valuable observation in practical therapeutics derived from the clinical method is the necessity, in many instances, when we desire to produce diuresis, to combine together two or more diuretic remedies: give them singly, and you fail to produce any diuretic effect; combine them together, and free diuresis may be produced. Dr. Long Fox has alluded to this well-known fact in his suggestive paper on the "Action of Diuretics," read at the last meeting of the British Medical Association, and he concludes his paper with these words: "In most cases the union of remedies that cause a flow from the glomeruli with those that excite activity of the renal cells leads to a more complete depuration of the blood; and herein, again, we may give honour to our predecessors, in that they discovered by observation (by the clinical method) what we now are able to explain physiologically."

I might instance numerous other facts of a like nature, but I prefer quoting to you a sentence from Dr. Wilks' address at the last annual meeting of the British Medical Association, because it seems to me to express with complete accuracy the true relations of therapeutics to practical medicine. "It might be worthy to remark," he says, "how treatment accompanies and follows pathological discoveries, *in opposition to the mistaken idea* which many seem to hold, that there is a science of therapeutics gained by simple observation of the action of drugs on the body. It is sometimes said that therapeutics stands still or lags behind other departments of medicine. I think this is not true, and cannot be true; in fact, *I am at a loss to know what pure therapeutics is apart from disease and pathological states.* It seems to me it is the study of external agents on various diseased conditions, and it is not so much new remedies, but a better indication and knowledge of how and when to use them, which is required." It was a source of great satisfaction to me to find so philosophical a physician and thinker as Dr. Wilks expressing with so much point and force the very same views which were in my own mind.

The same thought seems to have been in the mind of Sir Wm. Roberts, of Manchester, although he approaches the subject from rather a different point of view, for in his address on the section of Therapeutics at the same meeting he pointed out the error of attempting to base our investigation of dietetics exclusively on the physiology of digestion and nutrition. He says: "I doubt if this is always, or even generally, the best starting-point. There are problems in human dietetics which appear to be beyond the reach of physiological research." I can illustrate this remark of Sir Wm. Roberts by some observations that I have often had occasion to make, and which could only have been the result of the clinical or practical method.

You will not very infrequently encounter, in treating cases of typhoid fever, especially if you are too much addicted to the use of an exclusively mild diet, that every now and then the patient has attacks of intestinal pain accompanied with large semi-solid motions consisting almost entirely of curd of milk. I have seen this several times in children, and occasionally, but less frequently, in adults. Sir William Jenner called attention some years ago to the same fact. So that in cases of typhoid in some patients milk is by no means the perfect food it has been represented to be. I have long been in the habit of giving to such patients whey, which I usually have rapidly prepared by boiling milk with a little lemon-juice, and flavouring with a little grated lemon-peel and straining. I have several times, also, encountered persons to whom eggs in any form, and however disguised or mixed with other food, were absolutely intolerable, and invariably caused digestive disturbances. Quite recently I have had occasion to observe the excellent effects of a diet composed almost exclusively of butter-milk in some of the most severe and protracted cases of intestinal dyspepsia. The hint first came to me from the practice of Dr. Mezger of Amsterdam, the celebrated advocate of massage for the relief and cure of various chronic maladies. He told a patient of my own that whenever he himself became the subject, as he occasionally did, of severe gastric catarrh, he took no medicine, but simply restricted himself wholly to butter-milk for a fortnight, and he was always cured. My own patient certainly derived the greatest possible advantage from this diet, and was able to accomplish far more work, intellectual and physical, than on any other system of feeding. Another case in which it has proved of great use and efficiency is one of locomotor ataxy, with severe gastric crises. In this case the gastric crises have disappeared with this regimen.

There is another curious observation it has occurred to me to make in connexion with the disturbing influence of tea on digestion. You will find that certain persons can at certain times take tea in moderation without its producing any disturbing effect on their digestive processes, while at other times its use leads to much distress and discomfort, causing annoying palpitation and an uneasy sensation often amounting to actual pain about the upper part of the cardiac region, generally on the left side. Now you will find that this difference in their capability of tolerating tea is often dependent on some emotional disturbance of the nervous system; the instant there is any worry or anxiety or mental uneasiness tea will at once disagree with such persons, and when the emotional wave has passed by and a condition of nervous calm has been re-established, the use of tea can be resumed. It is often important to be able to recognise this disturbing influence of tea and coffee, especially on cardiac innervation, and particularly in the production of that peculiar præcordial pain which I have

described above, and to which I am not aware that attention has been previously called. A gentleman, a neighbour of mine, the subject of aortic regurgitant mischief, called one morning just after his breakfast, complaining of most distressing palpitation. His pulse was beating 200 to the minute, and his heart was thumping distressingly against the chest wall. Having inquired into the particulars of the attack, I said to him, "You are poisoned by tea or coffee"; and then he told me that, contrary to his usual habit, he had taken a quantity of both strong tea and strong coffee at his breakfast. Once warned, he never did so again, and so avoided a return of the attack.

It has also occurred to me to make another practical observation with regard to the influence of different wines, especially on gouty persons. You will find that with such persons the wine which most rapidly and most freely stimulates the renal secretion is the wine which will agree best with them. With some persons it is champagne, with some it is claret, and with some hock; but with all, the wine that fails to promote diuresis will almost invariably do them harm. I was staying one autumn with a friend at his châlet in Switzerland, when he paid a visit to an old wine grower in the neighbourhood for the purpose of buying some of his wine; the old man, speaking in commendation of some particular vintage, said, as the highest praise he could think of, and in words which sound coarser to us than they do to a French-speaking people: "Vous buvez une bouteille, et vous pissez une bouteille." Thus bringing the testimony of a long experience to the corroboration of the fact I have stated.

I have just mentioned the word "massage," and that suggests an allusion to another undoubtedly great gain to practical therapeutics arising purely from the clinical method of observation. I believe massage is destined in the future to play an important part in the treatment of chronic maladies. To Dr. Weir Mitchell of Philadelphia we are greatly indebted for informing the profession of the extraordinary value of this method of treatment in certain nervous maladies, and especially in cases of so-called neurasthenia. To Dr. Wm. Playfair we are also indebted for adopting and following up Dr. Weir Mitchell's suggestions, and with eminent success. Dr. Mezger of Amsterdam has acquired more than European celebrity by the very remarkable results which, in his hands, have followed this method of treatment. I shall hope in some future lectures to describe to you fully this mode of treating chronic maladies, and to indicate the cases to which it is most appropriate.

And here let me warn you against hastily and ignorantly hurling the word "quackery" at every mode of treatment which you may yourselves be indisposed to carry out, or with the *modus operandi* of which you may be unacquainted. In doing so we put ourselves in an entirely false position with the public, who, you must remember, are, after all, to a certain extent the best judges of what they want, and you lay yourselves open to the retort I once heard a clever lady make. "Why," said she, "am I to be told that everything that does me any good is 'quackery,' and that the only thing that is not 'quackery' is taking nasty medicines, which do me *no* good?" This leads me to say a few words on the *personal* element in therapeutics, which we cannot and should not ignore. The power of adding to the influence of our remedies, the influence of personal sympathy and force of character, should be cultivated to the utmost by everyone who desires and aims at being a successful practitioner of medicine. Those who affect to despise or disregard such influences have mistaken their vocation, and although they may be men of science they are not physicians, for they have left out of their studies the most important of all subjects—the study of the human heart. You will remember, probably, the story that is told of Sydenham, who when asked by a young physician what was the most useful book for him to read, said, "Read 'Don Quixote.'" "And after that?" said the young man. "Read 'Don Quixote' again." "And after that?" "Read 'Don Quixote' a third time," was Sydenham's answer. I should like to mention to you a remarkable instance of the effect of personal influence that happened to myself. I was called, in the middle of the night, to the bedside of a gentleman who was just beginning to convalesce after an attack of typhoid fever, and his wife and his nurse, who were at his bedside, said they had sent for me because he found it impossible to sleep, and he was becoming irritable and distressed at his restless condition. I felt his pulse, and in a somewhat oracular tone directed the nurse to give him a tablespoonful of brandy with one of water; within two minutes, while we were standing by his bedside, his wife amazed me by whispering, "Look, he is asleep!" and he was, indeed, fast asleep! The next morning he greeted me with the words, "You must be a magician." He was amazed himself at what had happened.

For the successful study and profitable pursuit of clinical therapeutics there are three mental qualities which are essentially necessary; they are: (1) absolute openness of mind; (2) what is almost the same thing, absolute freedom from prejudice; and (3) insight. Probably no physician ever reached great eminence in his art without the latter; it is the most precious of all gifts, and one which we should early attempt to cultivate. It is the power of penetrating through phenomena and divining their causes and meaning; the power of at once distinguishing the real from the unreal, the semblance from the reality; the power of distinguishing deceptions of all kinds, conscious or unconscious. I found a short time ago in one of my note-books the following story, the source of which I have, however, forgotten:—"An old Scotch minister was awakened out of his sleep to go to see a great lady in the neighbourhood, who was thought to be dying, whose mind was in dreadful despair, and who wished to see him immediately. The old man, rubbing his eyes and pushing up his night-cap, said, 'And when were her leddyship's bowels opened?' and on finding, after some inquiry, that they were greatly in arrears, he said, 'I thocht sae. Rax me ower that pill-box on the chimney-piece, and gie my compliments to Leddy Margaret, and tell her to tak those twa pills, and I'll be ower by-and-by mysel.' They did as he bade them—they did their duty and the pills did theirs, and 'her leddyship' was relieved." This, gentlemen, was insight; this was clinical therapeutics.

In conclusion, the point I wish to insist upon is this: The clinical method in therapeutics is, from the very nature of the investigations concerned, of necessity the ultimate and final appeal in all therapeutic questions. Whoever cares to think out this subject will see that this proposition is self-evident. To the clinical method all other methods are subservient and tributary. To extol the physiological or pharmacological method of investigation and to speak slightingly of the clinical method is to forget or to overlook the foremost and essential element in every therapeutic problem. The clinical method may be complex, difficult, and in a sense evasive and disappointing. That we cannot help; it is in the nature of therapeutic inquiries that they should be so. But I have instanced many most valuable and encouraging results obtained by this method; and I would ask most seriously and pointedly the following question: When have we, as a profession, seriously, and with something like a definite organisation, attempted to *methodise* the clinical method of investigation in therapeutics. With the establishment of the collective investigation movement in connexion with the British Medical Association the organisation and machinery needed for this purpose would seem to be at last afforded us; but the fascination of the pharmacological method is so great for some minds that it is at present difficult to obtain a hearing for the method which is far more within their means of operation, far more appropriate to the practical ends this movement seeks to accomplish, and far more likely to be productive of immediate and lasting gain to the practice of the healing art. And to you personally I would say, in necessary connexion with this subject, that it is your duty to focus, as it were, all your acquired knowledge upon one object, to concentrate all your acquirements to one end. It should never be your chief object to be a great physiologist or anatomist; or to be well versed in morbid anatomy and histology; or to be brilliant as a manipulator of surgical instruments; or to possess great diagnostic skill. I repeat, neither of these things should be your chief object, nor followed as an end in itself; but if you intend to be *medical* men, you must regard all these as but means to one chief end, and that is "healing the sick." In the zeal and ardour for the attainment of what is called a "scientific reputation" this cardinal truth is occasionally lost sight of, and I rejoiced to see that so wise and so philosophic an observer and thinker as Mr. J. Hutchinson, in his remarkable address on the "Uses of Knowledge," thought it necessary to say: "First, unquestionably, and as a thing which admits of no excuse for its neglect, you are to acquire a matter-of-fact familiarity with the common diseases and accidents to which the human frame is liable, *and their means of remedy*. Your first duty is to advise people for the best when they are ill,

and from this duty there must be no shrinking whatever." In the multiplicity of subjects which the student of medicine has to study, there is a real danger that his attention may be turned aside and his likings fixed too exclusively on one or other of the scientific subjects of collateral interest and of minor importance so far as his life-long calling is concerned; and there is, at least, an imagined superior dignity about purely scientific acquirements, acquirements that do not directly bear on the vulgar needs of suffering humanity which we must not allow to seduce us from our *real* calling. I invite you, then, to come voluntarily and examine with me the means of alleviation and cure which we possess in the treatment of those diseases which fall under the care of the physician. I do not propose to make any great demand upon your time; an hour once a fortnight through the winter and summer sessions is all, at present, I ask from you, because I wish to enter upon this subject with ample time for deliberation, selection, and preparation. I do not intend to run over hastily each year the whole range of practical therapeutics: that is what it will be my particular care to avoid. It is not my business, in any special way, to prepare you for examining boards, but to help you to prepare for the actual work of your lives. I propose, year by year, to take the treatment of some special maladies, or groups of maladies, and to endeavour to handle each subject fully and completely; and I shall, from time to time, turn aside to examine and discuss special modes of treatment, or the action and uses of special remedies. No one can, I imagine, pretend to doubt that there is a great need that a work of this kind should be undertaken, for your and my life-long work is the treatment of disease and the healing of the sick. Let us bring to that work all the acquirements that the truly marvellous progress of experimental physiology has furnished to us; all the intimate knowledge of disease which recent pathological investigations have disclosed; all the skill in the recognition and diagnosis of morbid states which our new and improved methods of physical examination supply; all the coolness and insight of the well-trained and well-equipped mind; and last, but by no means least, that sympathy with the human soul under suffering which, although it may lack "scientific precision," is dearest of all things to the human heart, upon which it falls like the "gentle rain from Heaven," and soothes, refreshes, strengthens, and heals.

THE

AFTER-HISTORY OF A SUCCESSFUL CASE OF OPERATION FOR REMOVING A VESICAL TUMOUR.

BY SIR HENRY THOMPSON, F.R.C.S.,

SURGEON EXTRAORDINARY TO HIS MAJESTY THE KING OF THE BELGIANS, LATE PROFESSOR OF SURGERY AND PATHOLOGY TO THE ROYAL COLLEGE OF SURGEONS OF ENGLAND, CONSULTING SURGEON TO UNIVERSITY COLLEGE HOSPITAL, EMERITUS PROFESSOR OF CLINICAL SURGERY, ETC.

IT is not always easy to trace the history of cases after operation, especially when successful, and to have the anatomical result verified by unquestionable evidence. I have just been favoured by Mr. J. L. Crisp, of South Shields, with the following account of a case of vesical tumour operated on by me, being Case 20 in my work on Tumours of the Bladder.

It is there recorded that, on May 30th, 1884, R. S. R——, aged sixty-three, had a firm multilobular tumour (examined by Dr. H. Gibbes) removed by me "almost level with the walls of the bladder" (*vide* sketch in the work named on page 111, and reproduced here by way of illustration), in the presence of Dr. Shippen, of New York, and Dr. Charamis, from Paris, by the perineal opening of the urethra. He made a slow recovery.

R. S. R——, wrote to me thirteen months after—viz., June 13th, 1885—"I have not the slightest sign of any return of the bleeding, have got over all effects, and am in as good health as ever I was in my life."

Mr. Crisp now informs me that owing to a bad suppurating bursa over the elbow, and severe cellulitis, the patient's arm was amputated a few weeks ago, and that he died. Mr. Crisp removed the bladder and kidneys and sent them to me, writing "that there was not the slightest sign of any return of the growth, and, in the fresh state, the cicatrix was very distinct." He adds that lately "R. S. R. occasionally passed a little blood; the specific gravity of the urine was

Case 20 in work referred to.

low, with traces of albumen: I suppose to be accounted for by the cirrhotic condition of both kidneys."

This is the first post-mortem examination which has come before me of a successful case, and it appears to be sufficiently interesting to be placed on record. The other successful cases are living and enjoying good health.

Wimpole-street.

ACUTE PARENCHYMATOUS MYOCARDITIS.

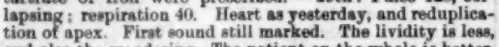
BY SAMUEL WEST, M.D., F.R.C.P.,

PHYSICIAN TO THE CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST, VICTORIA-PARK, AND TO THE ROYAL FREE HOSPITAL; MEDICAL TUTOR AND MEDICAL REGISTRAR TO ST. BARTHOLOMEW'S HOSPITAL.

(*Concluded from p. 242.*)

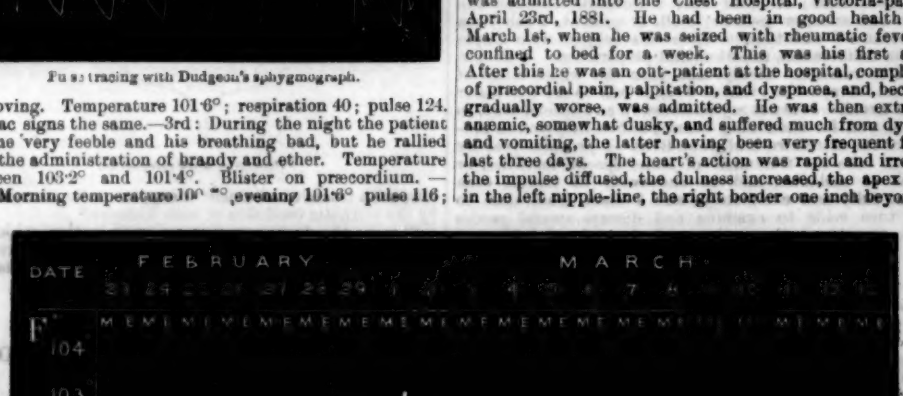
CASE 7. *Myocarditis associated with valvular lesions: recovery.*—James M——, aged thirty, was an in-patient in the Royal Free Hospital. He was attacked on Feb. 15th, 1884, with rheumatic pains in the hands, which lasted till the 21st, when they became worse, and pain commenced in the præcordial region. He had had three previous attacks of rheumatic fever: the first at the age of twenty-one; the second at twenty-four, and the third at twenty-six (four years ago). Since the first attack he had suffered from palpitation, and since the second with dyspnœa. The patient was pale and looked ill, with a hot, dry skin and coated tongue; the fauces were red and congested. Temperature 101·4°; respiration 40; pulse 120, bounding. There was strong visible pulsation in the carotids; cardiac dulness much increased; apex-beat one inch outside the nipple in the fifth space; impulse diffuse, and to be felt and seen as far as an inch inside the nipple in both the fourth and fifth spaces. The area of dulness extended from the apex to the middle of the third space and to the right of the sternum. A blowing systolic murmur was audible over the whole præcordial region, and there was doubtful friction near the base. Both wrists were red, swollen, and painful. There was a trace of albumen in the urine, and the bowels were constipated. A purge was administered, and twenty grains of salicylate of soda every two hours prescribed.—24th: Temperature, morning, 101·6°; evening, 98·2°.—25th: Temperature, morning, 100·2°; evening, 99·8°. Pulse 120; respiration 28. Pain less; perspiration profuse; pulse tremulous and feeble. Cardiac dulness somewhat further increased; sounds tumbling in character and indistinct; no distinct friction, but the systolic murmur was audible at the apex.—26th: Delirium last night, with horrors. Temperature 100·2°; pulse 116. Salicylate stopped. — 27th: Wandering continues. Temperature varies between 99° and 101·2° during the day; pulse 108. Patient looks very ill. — 28th: Wandering continues; cardiac dulness increased still further, and now reaches the second rib. A distinct friction-rub is now audible at the base of the heart, and a diastolic murmur along the sternum, but very faintly at the apex; the first

sound is reduplicated at the apex. Pulse 112, very weak; face very livid; temperature 101·4°. The albumen has been completely absent from the urine since the 26th. Fifteen minims of tincture of digitalis with ten grains of tartrate of iron were prescribed. — 29th: Pulse 128, collapsing; respiration 40. Heart as yesterday, and reduplication of apex. First sound still marked. The lividity is less, and also the wandering. The patient on the whole is better, but extremely feeble. (See Chart.) — March 1st: Patient



Fu s: tracing with Dudgeon's sphygmograph.

improving. Temperature 101·6°; respiration 40; pulse 124. Cardiac signs the same.—3rd: During the night the patient became very feeble and his breathing bad, but he rallied with the administration of brandy and ether. Temperature between 103·2° and 101·4°. Blister on præcordium. — 4th: Morning temperature 10[illegible]°, evening 101·6° pulse 116;



respiration 32. — 5th: The patient was very restless and delirious, and was constantly trying to get out of bed. A quarter of a grain of morphia was administered subcutaneously, and a second dose an hour later, after which the patient slept for a few hours. Friction-rub more marked. 6th: Six leeches ordered to præcordium, and ten minims of tincture of opium three times a day. Morning temperature 99·8°; evening, 98·6°.—7th: Patient much better, but complains of slight joint pains in shoulder and elbow. Pulse 96, stronger; respiration 24. Has had from six to eight ounces of brandy in the twenty-four hours for the last few days.—8th: The patient is still better, but extremely feeble. The cardiac dulness now extends above the second rib. The diastolic murmur is distinct, and friction still audible. Morning temperature, 99·8°; evening, 98·8°.—9th: Morning temperature, 98·2°; evening, 98·8°.—10th: Morning temperature, 98°; evening, 98·2°. The patient is improving, and cardiac dulness less. Brandy reduced to four ounces. Maximum cardiac impulse in fourth space just below the nipple. From this time the temperature remained normal except on one occasion, when it rose to 101°, probably due to constipation. The patient now rapidly improved. On March 17th the cardiac dulness had receded greatly, and now did not rise above the middle of the third space, nor extend beyond the nipple. The systolic apex murmur was loud and audible in the axilla, and the diastolic murmur heard over the whole præcordium, but most distinctly at the fourth left costal cartilage.—April 2nd: The patient was up for half an hour last night, but to-day the systolic murmur is louder, and it was thought wise to keep him longer in bed.—7th: The patient was up again for an hour, and the heart was beating more forcibly.—9th: Heart quieter. From this date there was rapid and uninterrupted improvement, and the patient was discharged on May 16th, feeling strong and well. The murmurs were still audible, but the diastolic had much diminished in loudness. (See Chart below.)

In the next case, the last of the series, the myocarditis was associated with extensive valvular changes. Both were acute, and the myocarditis more extreme than in any of the previous cases.

CASE 8.—*Rheumatic fever; endocarditis and myocarditis; death; extreme fatty degeneration.*—A lad aged sixteen was admitted into the Chest Hospital, Victoria-park, on April 23rd, 1881. He had been in good health until March 1st, when he was seized with rheumatic fever, and confined to bed for a week. This was his first attack. After this he was an out-patient at the hospital, complaining of præcordial pain, palpitation, and dyspnœa, and, becoming gradually worse, was admitted. He was then extremely anæmic, somewhat dusky, and suffered much from dyspnœa and vomiting, the latter having been very frequent for the last three days. The heart's action was rapid and irregular, the impulse diffused, the dulness increased, the apex being in the left nipple-line, the right border one inch beyond the middle line of the sternum; the upper border was displaced upwards, but could not be accurately marked out. At the apex was a well-marked presystolic thrill; a loud double murmur, thought to be a friction-rub, was audible over the whole præcordium. At the apex were two murmurs, one a low-pitched presystolic, the other higher pitched, rough, and systolic, and heard as well at the angle of the scapula. The liver was two inches below the ribs in the nipple-line, and there was slight œdema of the feet. On April 28th and 29th the patient was sick, and had much epigastric pain. On the 30th he became a little jaundiced. On May 1st the jaundice was deeper, and he brought up a little bright blood. On the 2nd he brought up some more bright blood, and was sick several times; the jaundice became deeper, the legs more œdematous, and in the evening the patient died.

The following is the record of the post-mortem examination:—Slight anasarca; slight jaundice; serous fluid in both pleural cavities (a pint and a half in right and half a pint in left). Slight old consolidation in apex of right lung, the lower lobe being œdematous. Liver and spleen and kidneys congested, but not otherwise abnormal. Heart weighed fourteen ounces; great dilatation of all the cavities, especially of the ventricles. No trace of pericarditis. The tricuspid orifice admitted four fingers easily; the mitral still more dilated. Aortic valves all slightly thickened, with small recent vegetation along semilunar lines, the valve most affected being that behind which there is no coronary artery.

The mitral valve is in the same condition; the chordæ tendineæ much thickened; several had ruptured, all of them belonging to the septal cusp of the valve, which was most affected. From one of the chordæ tendineæ a fragment nearly an inch long seemed to have disappeared. In the left auricle the endocardium near the appendix showed some recent thickening. The whole muscular substance of the heart was in a condition of extreme fatty degeneration; the speckling was visible both on the exterior and the interior, and on both sides. On section the fat oozed out from the surface and ran off in fine drops. The change seemed most marked in the pericardial half of the section. Under the microscope the usual appearances of advanced fatty degeneration were found. The coronary arteries were healthy.

Although the clinical record of this case is not so complete and full as it should be, it still, in connexion with the necropsy, presents many features of interest. 1. The extreme change in the heart. 2. The history which traces back the illness to the first attack of rheumatic fever. 3. The clinical condition of the patient. 4. The jaundice and epigastric pain. 5. The sickness and hæmatemesis.

The present series of cases stands as follows:—1. A case diagnosed as one of myocarditis, the necropsy demonstrating the presence of that lesion, and that only in the heart; the only other organ in the body found diseased being the liver. 2. A similar case quoted from a paper by Professor Leyden, with these minor differences—first, that in addition to recent change in the myocardium there was also evidence of antecedent disease in the presence of small fibroid patches only visible on microscopical examination; and, secondly, that the liver, which was also cirrhotic, was small instead of large, as in the first case. 3. A case of a first attack of rheumatic fever with sudden death, in which the only lesion in the heart was an acute fatty change of the muscular tissue. 4. A case similar in clinical respects, which was also fatal, but in which no post-mortem examination could be obtained. 5. A case also occurring in a first attack of rheumatic fever, which recovered completely. 6. A case in which, after a desperate struggle, recovery also took place, but a faint systolic murmur persisted. 7. A case of old morbus cordis, in which, after a similar clinical history, recovery occurred, but the evidence of the old lesions of course remained. 8. Lastly, a case of a first attack of rheumatic fever in which similar symptoms gradually developed and ended in death, and the post-mortem disclosed, in addition to acute valvular disease, the most extreme muscular degeneration of the series.

The resemblance between all these cases is too striking to be mistaken, and justifies the reference of them all to the same family group, for which I prefer to retain the usual name of "acute myocarditis." An analysis of them presents us with the following facts:—

Sex.—All the cases occurred in males, except the third. This is remarkable, for the liability to rheumatic fever is about equal in the two sexes, and it seems to indicate that there is no necessary connexion with this disease.

Age.—Male, aged fifteen (Case 5); male, sixteen (Case 8); female, twenty-four (Case 3); male, twenty-seven (Case 1); male, thirty (Case 7); male, thirty-four (Case 2); male, thirty-six (Case 4); male, forty-four (Case 6). All the cases occurred therefore before the middle period of life, and some at quite an early adult age. This serves to mark off distinctly the acute affection of the heart described in them from the gradual failure of the heart due to fatty change in old people—i.e., from the common form of so-called fatty heart.

Cause.—In four cases the attack could be distinctly attributed to rheumatic fever; in three of these there had never been a previous attack, and two of them died. In the fourth there had been three previous attacks, which had left extensive valvular mischief behind. In another case the patient had suffered previously from rheumatism, but not at all during the present illness. In a sixth case there was a doubtful history of rheumatism. In the two remaining, a rheumatic history was absent. Both were heavy drinkers and had been in want recently, and one of them had suffered not long before from syphilis. Both of these died.

Mortality.—This is high. Out of the eight cases recorded here, five died, three quite suddenly. In two cases recovery was, so far as could be judged, complete.

These facts would seem to prove what is commonly stated that myocarditis generally occurs in the course of rheumatic fever, but pains in the limbs are noted in many of the recorded cases, and in some the ordinary signs of rheumatic affection of the joints are distinctly stated to have been absent, so that the mere occurrence of indefinite achings and pains in the limbs is not conclusive proof that the case is one of rheumatic fever; and both Kühle and Köster describe these pains as part of the disease, and as not being necessarily those of rheumatic fever.

Clinical symptoms.—All the patients excepting one, were desperately ill. In this one exception (Case 3) there seemed to be nothing in the patient's condition to cause alarm, until she suddenly turned faint, fell back, and died. The prominent symptoms in all were duskiness, panting dyspnœa, with extreme feebleness of the heart and pulse. The temperature was raised in nearly all. In Case 7 the temperature chart was mislaid, and in Case 8 the temperature was normal. In the others it varied much, but never reached a great height, averaging about 101° or 102°, and that for no prolonged period. As there was a rise in temperature in one of the non-rheumatic cases, the explanation must be looked for, not in the rheumatism, but in some other cause, and we may compare with it the rise which is not uncommon in valvular disease of the heart, especially in cases of aortic regurgitation. Although no anatomical explanation of this is forthcoming—i.e., no inflammation or infarcts are found in many cases,—its grave import is well known, and it may turn out that we shall be justified in referring the rise of temperature to the condition of the heart itself. The rate of respiration was rapid in all the cases. In four there was distinct evidence, in the presence of bronchitic sounds, of congestion of the lungs; but in the other four the cause of the dyspnœa and cyanosis must be looked for elsewhere. The dyspnœa was not of the laboured obstructive kind common in bronchitis, but of that panting character which has sometimes been plainly called cardiac dyspnœa. Jaundice was present to a slight extent in three cases; in two of these there proved to be gross disease of the liver (viz., cirrhosis), but in the third the jaundice was probably due to congestion, for in this, as also in two others in which jaundice was absent, the liver was enlarged at first and gradually diminished in size as the patient's condition improved. Œdema of the feet was absent in four cases and present in four, though to a slight extent only, and without any ascites in three cases and with ascites in the fourth. The urine was usually diminished in quantity. In five cases it contained albumen in slight amounts, varying from day to day and disappearing with recovery. In the other three albuminuria did not occur. There was no relation between the albuminuria and œdema, the former being present sometimes when the latter was absent, and *vice versâ*. Delirium of a low, wandering kind occurred in six out of the eight cases, and appears to be one of the most constant phenomena. The delirium was associated with drowsiness and heaviness in four out of these six cases, and in three of them uræmic-like twitchings of the limbs and body occurred. In Case 1 these twitchings almost amounted in severity to fits, but although in that case there was a slight amount of albumen in the urine, the twitchings occurred in other cases where it was absent, and hence they cannot be attributed rightly to uræmia. They are probably evidence of asphyxia. The first case suffered greatly from attacks of faintness, with cold sweating; but though the faintness occurred in other cases, the cold sweats did not. The pulse was in all cases extremely feeble, fluctuating greatly in force and frequency; the tension in the vessels was low, and the pulse wave small and ill-sustained. The rate in most cases was rapid, the slightest effort or excitement sending the rate up many beats in the minute. The extraordinary effect which digitalis had in reducing the pulse-rate observed in Case 6 was also observed and commented on by Prof. Leyden in his case (Case 2). Precordial pain was a prominent complaint in five cases, and palpitation was frequent. It was to the heart, as the source of all trouble, that the symptoms seemed to point, and it was in this organ that most clinical evidence of disease was found. The cardiac dulness was increased in seven out of the eight cases. In this one the obesity of the patient prevented the cardiac area being determined accurately. The apex was displaced to the left. The increase of dulness was chiefly to the left and upwards, indicating dilatation of the left side of the heart. In Case 6 the diagrams show an increase also to the right, and the dilatation was therefore general and very considerable. As the patient recovered, the area of cardiac dulness contracted in all directions, and at last did not extend towards the right beyond the left edge of the sternum,

though it was then somewhat increased towards the left. The sounds were extremely feeble in all the cases. This enfeeblement affected especially the first sound, which in one case could hardly be heard at all. There was no murmur or friction audible at any time in four cases. In another a soft-blowing systolic murmur was audible for a time over the whole præcordial region and subsequently disappeared. In one other a faint systolic murmur at the apex was audible throughout and persisted after recovery. This was in an old rheumatic case. In the remaining two there were the permanent murmurs characteristic of gross valvular disease. The clinical symptoms seemed all to point to the heart as the organ in fault, and in those cases in which death took place and a post-mortem examination was made, it was in the heart that the chief, or in some cases the only, lesion was found; and in three out of the five fatal cases the pathological change was confined to the myocardium, so that the history of the disease is complete.

The present series of cases appeared to me worthy of being put on record together for these reasons: (1) that, although the difficulties are great, the diagnosis of myocarditis can often be quite correctly made; and (2) that myocarditis is, as I believe, not by any means so rare an affection as is commonly stated.

Wimpole-street, W.

FIVE ADDITIONAL CASES OF CHOLECYSTOTOMY.

BY LAWSON TAIT, F.R.C.S.

THE following five cases complete a series of twenty-one cases of cholecystotomy, in all of which recovery has taken place.

CASE 17.—This patient is a male, practising as a physician in London, and aged forty-eight. His first trouble, in February, 1882, was a severe attack of colic occurring after dinner, and lasting some hours. During the spring of that year he had several similar attacks, always commencing about midnight, when asleep in bed. He was free for some months until August, when after a day's hunting an attack commenced about six o'clock in the evening, followed by obstinate vomiting, which left the patient very prostrate. The winter of 1883 he passed in the Riviera, and was free from any attacks. He returned to London in the middle of May and resumed his work, and very soon had a similar attack, quite as severe as any of the former. This was followed by repetitions at about a fortnight's interval, in many of which death appeared imminent; and an endless number of therapeutics were resorted to in vain, relief being obtained only from hypodermic injections of morphia. All who were consulted regarded it as a case of gall-stones, but the patient himself did not concur in this view. The attacks were sometimes, but not always, followed by jaundice, and occasionally an ill-defined tumour in the region of the gall-bladder could be discovered. In his own words, throughout the illness the most obviously exciting cause of the attacks was posture, stooping over a writing-desk; and he ultimately had to do such work either kneeling or at a standing desk, and in lying he had to be on his right side whenever possible. Active physical exercise, such as tricycling, fishing, and hill-climbing, seemed to have considerable effect in warding off the attacks. I saw him on October 2nd, and found that during two years he had gone off from being a man of nearly fifteen stone to very little more than ten. He had a distinctly jaundiced appearance, and on examination I believed I could feel the gall-bladder distended. The palpation under this necessary examination brought on a severe attack of pain, and with it something almost of the nature of a convulsion. His temperature went up to 104°, and the pain was so severe that chloroform had to be administered. It was thought by all of us advisable that cholecystotomy should be performed next morning, and, in the profound belief that I should find a calculus obstructing the cystic duct in a valve-like fashion, I performed the operation next day, but found no stone. I established a biliary fistula, and the patient made a very easy recovery. His temperature never exceeded 37° C., and the highest pulse record was 79. There has been no attack of pain or distress of any kind since, and the patient is rapidly regaining health and strength. We have sent him away on a six months' voyage, with the fistula still open, and with instructions to let it close if it likes, but on the recurrence of any symptoms to have it reopened.

CASE 18.—R. J——, aged forty-eight, resident in Birmingham, was placed under my care by Dr. Rogers, with a well-defined tumour in the region of the gall-bladder, extremely tender on pressure, and with a history of several years' suffering from severe gall-stone colic—her life, in her own words, having been miserable for years on account of incessant discomfort and pain. I found the gall-bladder distended with about two-thirds of a pint of pus, and the neck blocked up by a large solitary calculus firmly impacted in it. I had to break it up to remove it. A few hours after the operation bile flowed freely through the wound, and the patient made an easy and uninterrupted recovery. The fistula has now healed, and the patient is perfectly well.

CASE 19.—E. S——, aged thirty-two, resident in Birmingham, was sent to me by Dr. Hoare with all the symptoms of gall-stones, but I could not discover any indication of distension of the gall-bladder. I therefore diagnosed it as a case of multiple small gall-stones. I operated upon her on November 11th, and found my view correct. I removed eight small stones; but, as her sufferings had existed for many years, the probabilities are that she had passed the great majority of the calculi with which she was troubled. The attacks came on at intervals of two or three months, and lasted for two or three weeks; so that if I had left her alone, nature would probably have cured her in about two or three years; but as we had no guarantee of that, and as the patient was completely exhausted by suffering and desirous of obtaining relief, the operation was performed, and, I think, even for the sake of shortening her sufferings by two or three years, was completely to be justified—at least, that is her opinion.

CASE 20.—M. B——, aged fifty-seven, placed under my care by Drs. Quirke and Wade. The lady had passed a large number of gall-stones, having had severe attacks at short intervals for several years; the gall-stones were all of moderately small size. I opened the gall-bladder on December 12th, 1885, and removed eighty-four stones, which varied not a very great deal in size. She made an easy recovery, and is now completely well, although the fistula is not yet healed.

CASE 21.—On December 21st, 1885, in the clinical wards of the Royal Infirmary of Edinburgh, I performed cholecystotomy on a man at the request of Professor Grainger Stewart. The symptoms were those of suppuration, not very clearly those of gall-stones. After a consultation with Professors Chiene and Annandale, and others of the staff, I opened the abdomen rather with the belief that I should meet with an abscess of the liver than what turned out to be the case—a suppurating gall-bladder full of gall-stones. The patient is still under treatment, and on the whole is progressing very well. The details of the case will be shortly published, with remarks by Professor Grainger Stewart himself.

By far the best of the recent papers upon cholecystotomy is one by Dr. Augustus C. Bernays of St. Louis, which appeared in the *Weekly Medical Review* for Oct. 31st. The title is one which is a little puzzling until the paper is read—"Ideal Cholecystotomy"; and the author discusses three possible operations for the surgical treatment of gall-stones. His "ideal cholecystotomy" is that where he can close the opening into the gall-bladder and drop the cyst back; and for the first time in his hands this operation has been successful. The second operation of which he speaks is what he calls "natural cholecystotomy"—that is to say, the operation I have performed successfully twenty-one times, imitating the process of nature by securing the adhesions of the gall-bladder to the abdominal wall, and the formation of a fistula as part of the treatment. The third operation is "cholecystectomy," which, he says, should be limited to cases of otherwise incurable or malignant disease of the gall-bladder.

One or two points in the paper are worth a little discussion. The last which I have mentioned—the limitation of cholecystectomy—I should extend further than Dr. Bernays has done; because nothing would induce me to remove a cancerous tumour of the gall-bladder, for there could be no reasonable amount of hope that the disease would not return. I cannot imagine any other kind of disease of the gall-bladder which would be incurable; for in some of my cases suppuration has led to almost complete disorganisation

of the organ, and yet after drainage for some weeks it was completely restored to its functions, whatever they may be. Dr. Bernays says that ideal cholecystotomy is indicated when the bladder is normal in structure, and when the gall-ducts have been cleared of obstructing calculi. But he seems to be perfectly well aware of the validity of the conclusion which I have completely established, that it is absolutely impossible to be sure that the gall-ducts have been so cleared. His own case of successful ideal cholecystotomy was an example of which I have seen a considerable number, where, by the chronic inflammatory change effected by long impaction of gall-stones, the duct was practically obliterated. In such cases the regurgitation of bile after the operation does not take place until the inflammatory effusion has subsided, many days after the operation, sometimes two or three weeks; therefore it was not really a fair chance to test the efficacy of his ideal operation; and supposing that the accident of subsequent suppuration took place, a not unlikely thing after such an operation, nothing could happen but that the suppurating gall-bladder would discharge its contents through the aperture made at the time of the operation. One other point is the consideration of the possibility of a subsequent formation of gall-stones, and is a very strong argument in my own mind against Dr. Bernays' ideal cholecystotomy; for if such a thing should happen the whole operative process must be gone over again. On the other hand, if my proposal, characterised by Dr. Bernays, and very appropriately, as natural cholecystotomy, had been carried out, a single incision into the adherent gall-bladder, guided by a tattoo mark, which can be very easily left to identify the site, would enable complete and effectual relief to be given without any risk at all. This is an argument in favour of the operation I advocate, which I have frequently pointed out, and which I desire again to put into prominence. In all other respects I entirely agree with Dr. Bernays, more particularly in his condemnation of the transcendental cholecystotomy of Dr. Gaston.

Birmingham.

STUNNING AND BURN BY AN ELECTRIC LAMP.[1]

By GEORGE BUCHANAN,
PROFESSOR OF CLINICAL SURGERY, GLASGOW UNIVERSITY.

INJURIES from electric lamps are becoming not infrequent. In most of the cases related death has been instantaneous. In a case reported on Jan. 22nd as occurring at Liverpool the man was stunned and remained unconscious for a time and on recovering was found to be quite blind. The case here related is very curious as to its causation and its effects.

William C——, aged forty-four, a workman in Clydebank building-yard, was engaged at a crane on Nov. 19th, 1885. At the extremity of the wooden arm of the crane was an iron pulley, over which hung an endless chain for raising weights. The man had occasion to pull at the chain, and while so doing an electric lamp, which was suspended above, by some mischance was lowered till it touched the iron pulley. The lamp was one of the arc kind, worked on the brush system. The instant this occurred the man felt a shock pass through him, became "doubled up," and then lost consciousness; but he did not fall to the ground, being held up by the chain which his hands firmly and involuntarily grasped. Some three or four minutes elapsed before the electric current was cut off at the machine, when the man dropped down on the ground stunned. He was taken to the Western Infirmary about an hour afterwards, by which time he had recovered consciousness and could give a distinct account of what had happened. The injuries received were not very severe. There was a vesication on the palm of his hand where it held the chain; also one on the side of his neck, which rested against the chain during his pulling it down. On the sole of his right foot in front, where the chief weight of his body rested in the act of pulling, was a spot about two inches square, where the tissues were completely charred by the heat of the current passing into the ground. There were no nails in the boots, and there was no perceptible evidence of heat on them, but the sole of the stocking was charred opposite the charred part of the foot. Sir William Thomson, who questioned the man after his recovery, explains that the moist foot of the stocking must have acted as the medium of conduction between the man's body and the ground, and so determined the seat of the burn.

The symptoms complained of were not very severe; they consisted of a slight amount of general shock, a feeling of heat in the abdomen and chest, and dimness of vision, all of which passed off in twenty-four hours. The wounds were treated in the ordinary way. A large slough separated from the sole of the foot, followed by rapid granulation and cicatrisation, and the man was dismissed cured in about six weeks.

Sir Wm. Thomson suggests that if any of the bystanders had taken the man by the clothes and drawn his feet from contact with the ground, or had thrust a bit of dry clothing of any kind under his feet, the contact would have been broken, and the hand relieved from its grasp of the chain. The wonder is that an electric current powerful enough to char the thick integument of the sole of the foot, passing through the man, did not produce any internal mischief.

[1] From notes by John Macdonald, M.B.

LARGE FIBROID TUMOUR OF THE UTERUS.

SPONTANEOUS EXPULSION; CURE.

By W. H. JALLAND, F.R.C.S.,
SURGEON TO THE YORK COUNTY HOSPITAL.

ALTHOUGH spontaneous expulsion is one of Nature's ways of performing a cure in this condition, still, as it of so comparatively rare occurrence for large fibroids to be got rid of in this way, I think this case worthy of record. I first saw the case in consultation with Mr. Aylward, of York, on Jan. 2nd, 1885, on account of severe hæmorrhage from which the patient was suffering, and which at one time looked as if it might prove fatal. When I first saw her she was in such a feeble and blanched state that very little examination could be made, all our energies being directed to stopping the bleeding. This was fortunately done with the aid of ergot, ice, and opium, together with absolute quiet. I may say the bleeding had almost stopped before I saw her, through the active measures Mr. Aylward had adopted. I saw the patient again with this gentleman on Feb. 7th; the bleeding had then almost ceased, but she was apparently getting into a septicæmic condition, with a temperature of about 102°, tenderness over the abdomen, fetid discharge, and brown tongue. Thinking I should have her more under control in case the hæmorrhage returned, I advised her removal into the York County Hospital, which was accordingly done on Feb. 12th; and the following notes were taken during her stay there by Mr. T. Birt, junior house-surgeon.

Mrs. B——, aged forty-one, married. One sister died from recurrent tumour of arm; other relations healthy. Previous history good. Had three children; one died in infancy. No miscarriages. Two years ago (five or six years after the birth of the last child) she noticed a small lump in the lower part of the abdomen, which never gave her much inconvenience, but gradually increased in size till last Christmas, when she was seized with an attack of severe flooding, and since then has been subject at intervals to similar though slighter attacks. On admission, the patient was emaciated and very blanched, the mucous membrane of the lips being white. She complained of pain in the lower part of the abdomen, which kept her awake at night. She said she had a discharge of blood, which was not so profuse as it was a week ago. The vaginal discharge was very fetid, being noticeable for some distance from her bed. There was present an enlargement, dull on percussion, roundish in outline, and smooth, passing upwards out by the pubes to a point about three fingers' breadth above the umbilicus, and occupying the median line; from the tumour there bulged outwards at its upper part towards the right hypochondrium a smooth swelling about the size of an orange, giving a semi-fluctuating sensation on palpation. The whole mass could be moved slightly from side to side. On examination per vaginam the os was patulous and open, readily admitting the finger; discharge purulent and fetid. The sound passed readily into the cavity of the uterus for 6½ in. Temperature 101·2° at 8 P.M. She was ordered a

mixture of cinchona and ammonia, an ounce to be taken three times a day; carbolic acid lotion (1 to 60) to be used as an injection every four hours. To have a diet of mutton, strong beef-tea, and milk, and half a point of porter daily.

Feb. 14th: Patient much the same. Discharge very profuse. Complains of much pain. Ordered half a grain of opium pill three times a day. Only one slight occasional hæmorrhage. Temperature ranges between 99·2° and 101·8°.—19th: Same condition. Mixed with the discharge have been a few walnut-sized irregular masses of white fibrinous-looking material (she passed one or two of these before her admission). One of these was examined under the microscope and was found to be identical in appearance to the fibroid tumour, only that no bloodvessels could be detected in it. As she complained of feeling sick, she was ordered a mixture containing bismuth and soda.—23rd: Sickness gone. Still passes flocculent masses about every other day. Size and external outline of uterus remain about the same; discharge still very fetid. Ordered half a drachm of iodoform and glycerine to be used with the injection. Temperature on two mornings below 99°, at night between 100° and 102°.

March 2nd: Irrigated uterus by means of uterine douche, iodoform being used in the injection; douche used for the next two days.—5th: The following was noted to-day: Sound only goes in for about three inches and a half; fundus uteri two fingers' breadth below umbilicus; not half so much discharge, and not so fetid.—8th: Discharge still further lessened in quantity. Ordered some ergot and nux vomica.—11th: Discharge odourless. The uterine douche, which had been used every other day, was now discontinued on account of difficulty of introduction. During the last seven days one or two fibrinous masses have been expelled. Temperature normal in the morning, and only occasionally rising at night.—25th: Got up to-day. Regaining colour. Still a slight inodorous leucorrhœa. Ordered some steel.—29th: Catamenia commenced, ushered in with characteristic and normal prodromata. This discharge was lighter than usual, and continued always very moderate in amount for five days.

April 8th.—Getting fat. Walks in the garden daily. Uterus normal. Ordered some tincture of steel and nux vomica.—12th: Went out to-day well.

July 18th.—Has been seen several times since her discharge. Has had her usual monthly periods with only an average loss. Has gained flesh, looks well, and has regained her natural colour.

A CASE OF

EMPYEMA WITH CEREBRAL ABSCESS.[1]

BY DAVID W. FINLAY, M.D., F.R.C.P.,

PHYSICIAN TO THE MIDDLESEX HOSPITAL, AND TO THE ROYAL HOSPITAL FOR DISEASES OF THE CHEST.

THE subject of the following communication was a young man aged twenty, who came under my care in the Middlesex Hospital on Dec. 17th, 1884. On admission his temperature was 99·6° F.; pulse 80, of good force, and regular; respiration 24; tongue clean and moist. He was described as fairly well nourished, but rather anæmic, with clubbed finger-ends, and complained of a discharge from an opening in the left side. On examination of the chest the left side was markedly retracted, and did not move in respiration; the right front moved more freely than normal. Resonance and breath-sounds over the right front were excessive. As regards the left front, the resonance was marked as far down as the third rib and as far out as an inch and a half beyond the vertical nipple-line. Past these limits resonance was rather abruptly replaced by absolute dulness, which extended right round to the back. Over this dull area the breath-sounds and tactile fremitus were wanting, while both, together with vocal resonance, were rather exaggerated over the resonant area above the nipple. There was a small opening discharging pinkish-coloured pus in the fourth interspace of the left front in the parasternal line. The discharge was small in quantity and not offensive. Turning to the back, there was impaired resonance on the left side from the spine of the scapula downwards, and the breath-sounds were wanting, except towards the spine, where they could be faintly heard. Over the right back the breathing was harsh; there were no adventitious sounds to be heard anywhere. The heart's maximum impulse was apparent in the third interspace immediately to the right of the sternum. The first sound was accompanied by a blowing murmur in this situation, the second sound was clear and sharp. The patient had no cough and no sweating at night. The urine had a specific gravity of 1015, was faintly acid, and contained no albumen or sugar. The family history was quite satisfactory, and he had enjoyed fairly good health up to the present illness, which began in an attack of pleurisy in July, 1883, about eighteen months before his coming under observation. He had been tapped three times at weekly intervals, and after the lapse of a month his side was incised and irrigated daily. Under this treatment the discharge had gradually diminished and he was sent to the seaside as cured; but it had become more profuse again, and had continued so for a year or more, being variable in quantity but showing no tendency to dry up. It should be noted that before being incised the empyema had pointed, and the skin over it was, as he described it, "as thin as paper." There was nothing abnormal in the abdomen.

As it was quite obvious that the only chance of curing the empyema lay in establishing a free exit for the pus and endeavouring to get the side to contract, so as to abolish the abscess cavity, he was taken into the operating theatre five days after admission (Dec. 22nd), and had a free opening in the chest made, at my request, by Mr. Gould, who removed a piece of the fourth and fifth ribs at the seat of the discharging sinus. An abundant escape of rather fetid pus took place; a large drainage-tube was inserted and the usual dressings applied after the pleural cavity had been irrigated with a warm solution of permanganate of potash. This irrigation was continued daily, and he went on perfectly well for a time, the quantity of discharge gradually diminishing. He had a good appetite, slept well, and had no rise of temperature or other untoward symptom. On Dec. 30th, however, eight days after the operation, he was seized at three o'clock in the afternoon with a convulsion of an epileptiform character, which lasted with more or less severity for about fifteen minutes. The fit was repeated six times within the next twenty-four hours. I did not see him in any of the attacks, but the following was the description of them given to me by those who did. The first thing observed was clenching of the teeth and spasm of the muscles of the neck, and this was followed by rigidity of the muscles of the trunk and extremities, the legs being extended and the arms flexed. His head was turned to the right, to which side the eyes also deviated, and there was twitching of the lips and eyebrows; the face became cyanosed, and he bit his tongue. When the spasm passed off, the patient lay in an almost collapsed state, with slow stertorous breathing. During the attack the pupils were contracted, but dilated afterwards, and were inactive to the stimulus of light. The urine was passed incontinently. All the other fits were stated to be similar to the above, only lasting longer. He was very drowsy and stupid between the fits, and after they passed off he complained of headache. When these attacks finally passed away, it was noticed (Jan. 2nd) that the tongue was protruded to the left and the face drawn to the right, and that he complained of shakiness of the left arm, in which there was considerable loss of power, the grasp of the left hand being also very feeble. Otherwise, on this day he was improved; the pupils were equal and active; he had slept well, and taken his food well; there was very little discharge from the wound, which looked healthy. He was brighter as to his mental condition. On ophthalmoscopic examination the optic discs appeared quite normal. I should have stated that the irrigation of the pleura had been discontinued on the first appearance of the convulsive attacks.

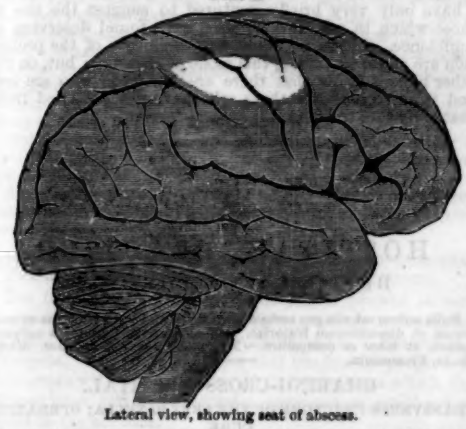
I need not take up time by tracing his condition from day to day. It will be sufficient to say that the face remained paralysed, the paralysis of the arm increased (particularly as regards the muscles of the forearm), and was followed in four days by progressively deepening paralysis of the left leg. With all this the pulse was slow, about 60; frontal headache was complained of, and the temperature was rather subnormal. On January 9th he had an attack of vomiting, and he was noted to be becoming duller in intelligence: he could not be made to understand or answer questions. On this day also another ophthalmoscopic

[1] Read at the meeting of the Medical Society of London, Feb. 8th.

examination was made, but nothing abnormal discovered. From this point onwards his stupor gradually deepened; he had a slight return of the vomiting, became profoundly comatose, and died quietly on January 13th, at 12.45 A.M.

The necropsy was made by Dr. Fowler, sixteen hours after death, and the following was the condition of things:—There was the opening of a sinus in the fourth left interspace in the mammary line, admitting the little finger, and leading to the sac of an empyema, which

FIG. 1.



Lateral view, showing seat of abscess.

occupied the lateral and posterior aspects of the left side of the chest. The side was much contracted, the lower intercostal spaces being almost obliterated by the coming together of the ribs. The pleural layers were converted into dense fibrous walls nearly half an inch thick, enclosing a space about seven inches and a half in vertical measurement, lined by a soft and highly vascular membrane. This contained scarcely any pus, but on pressure of the chest-wall above the external opening, about half an ounce of pus oozed out. This was found to come from an abscess sac situated over the third interspace. As for the lung itself, both lobes were collapsed posteriorly, but the anterior part of the upper lobe was crepitant. The right lung was crepitant throughout, but presented some adhesions posteriorly, and slight œdema of the base. The heart was found displaced to the right; the pericardium was normal; the heart's valves were also normal in appearance and competent; the muscular substance was rather soft. There was nothing noteworthy found in the abdomen. The right side of the brain on removal of the membranes was seen to be much enlarged, bulging towards the left, with much flattening of the convolutions of the surface. (Fig. 1.) There was no meningitis. After being hardened in spirit, the brain was divided by vertical sections, one of which is shown in diagrammatic form in Fig. 2. The abscess was found to begin at the middle of the anterior border of the ascending frontal convolution immediately beneath the grey matter, extending backwards in the centrum ovale underneath the fissure of Rolando into, but not beyond, the ascending parietal convolution. It was nearest to the surface just in front of the fissure of Rolando, where it encroaches upon the grey matter. The abscess cavity was widest from side to side immediately beneath that fissure, where in the hardened brain it measures two inches, extending inwards to a point just above the lateral ventricle, and about a quarter of an inch from the caudate nucleus. The whole brain measured seven inches and a quarter in length, the length of the abscess being three inches. The abscess had no limiting wall or lining membrane, the cavity presenting a rough and ragged surface.

FIG. 2.

Vertical section from upper part of fissure of Rolando to optic commissure, showing seat of abscess.

Regarding the empyema little need be said, the chief interest of the case centring in the cerebral abscess. Nevertheless, I may briefly refer to one or two points.

Irrigation of the pleural cavity has been followed in a number of cases by attacks of an epileptiform character, and speedy death. I can recall very vividly a case of this kind, which occurred in the Middlesex Hospital ten years ago, and which is recorded by Dr. Cayley in the tenth volume of the Clinical Society's Transactions. In such cases, however, the attacks have come on when the pleura was actually being irrigated or injected, and no lesion has been found in the brain after death. In the present case the fit did not occur till about three hours after the irrigation of the pleura; and although, as a precautionary measure, I ordered the discontinuance of the irrigation, I cannot say that I look upon the relation of the two things to each other in the light of cause and effect. At the same time it is conceivable that they might have such a relation, the manipulations necessary during the irrigation possibly loosening a thrombus, which a subsequent movement or coughing on the part of the patient finally detached. And I think it is quite worth while considering whether the washing out of the pleura, except in special cases—those, for example, in which the pus is very fetid—is worth the risk run. I think that if a free exit is provided for the pus, the washing out in the general run of cases is not necessary, and may be mischievous. Towards securing this free exit, I should say that there are few cases in which the removal of a portion of rib can be advantageously dispensed with; and if this course were followed early in cases of empyema, I believe that the results generally would be more satisfactory.

As to the ultimate cure of the empyema in the present case, had the complication of cerebral abscess not cut short the patient's life, the abscess cavity in the pleura was so large, and the bony case enclosing it on one side so absolutely unyielding from the contact of the ribs and thickening of the pleura, that nothing but a very free removal of ribs, and probably not even that, would have availed to produce obliteration of the sac, for it must be remembered that but little help would have come from the collapsed lung. If, however, more than a year had not been practically lost in the effective treatment of the case, I cannot help thinking that the result might have been widely different.

So much for the empyemal side of the case. As regards the brain when the epileptiform attacks occurred, followed by left hemiplegia, it was not difficult, having regard to the empyema, to read aright the cerebral symptoms—there was little doubt that an abscess had formed in the right side of the brain. On the subject of cerebral abscess little, if anything, has been added to our knowledge since the publication of the article by Gull and Sutton in "Reynolds's System of Medicine;" and the present case is chiefly interesting in that it exemplifies one of the rarer conditions under which the disease occurs. Of seventy-six cases tabulated in the article referred to (and this appears a fair number on which to establish a rule of proportion), three only were consequent upon empyema. As to symptoms in the present case, the chief in diagnostic importance, after the convulsions and consequent hemiplegia, was pain in the head, referred mostly to the frontal region; but it was seldom very marked, giving the impression rather of a dull aching than positive pain. Vomiting was present only to a very trifling extent. There was no rigor, and the temperature was almost always subnormal, exceeding 100° F. on one occasion only. This point, the absence of pyrexia in cerebral abscess, has, I think, been noticed by several recent observers.

Regarding etiology, the abscess must be supposed to have owed its origin to some minute coagulum carrying septic infection from the suppurating focus in the chest, or from the divided rib ends. This, of course, is in general only a matter of reasonable inference; but the missing link has in one case been supplied by Boettcher, who is said to have found lung pigment in the cavity of a cerebral abscess, which followed abscess in the lung. But we do not thus

get rid of all difficulty; for to infect the brain the septic material must first have been carried to the right side of the heart, sent through the lungs, returned to the heart, and then propelled to the brain.[1] But how did it pass through the lungs without leaving pyæmic abscesses there to attest the route of its progress? We know that in ordinary cases of pyæmia the lungs are prone to be the seat of metastatic abscesses. Why should they escape in such cases as this? Is it because particles not fine enough to escape arrest in the brain are yet able to pass through without lodging in the lungs, or because cerebral tissue is in some cases more apt to take on inflammatory action? If the latter, it may be that the long-continued suppuration of the empyema may induce a more than ordinary liability to suppuration in the brain. But these are matters of speculation.

Finally, as to treatment. I need hardly say that the question of surgical interference was discussed more than once. One thing in its favour was that there was little difficulty in saying where the seat of the abscess would be found. The symptoms noted during life pointed to the neighbourhood of the fissure of Rolando. But there were other points to be taken into consideration. First, the contents of the abscess might not have been so liquid as to have been readily removed when found, resembling, perhaps, more a diffused softening than completely formed pus. Secondly, the progress and extent of the paralytic symptoms led to the belief that a large area of brain was involved, to which probably permanent damage had been done, and even if the dangers of the operation itself had been safely surmounted, the ultimate prospects were not encouraging. Notwithstanding these considerations, however, I regret that the evacuation of the abscess was not attempted, although, perhaps, the result would have been of more advantage to medicine than to the patient himself.

DRY DRESSINGS FOR INTERNAL CAVITIES.[2]

BY CHARLES F. HUTCHINSON, M.D.,
MEDICAL OFFICER TO THE ROYAL NORTHERN SEA-BATHING INFIRMARY, SCARBOROUGH.

DRY dressings being now all the fashion, and to my mind most justly so, I wish to draw the attention of the profession to a very simple method of applying, in the dry state, dressings, styptics, &c., to such cavities as the vagina, uterus, and rectum.

The only apparatus required is a hollow cacao-butter suppository, which suppositories are made in various sizes, the largest of which will just about hold one drachm of any ordinary powder. These hollow suppositories are filled with the powder that may be wished to be used as a dressing; the small lid, after being gently heated, is put on; this when cool remains fixed, and the whole apparatus is then ready to be introduced into the vagina or rectum. The heat of the body soon melts the cacao butter, and the powder is then brought, in as dry a state as possible, into direct contact with the parts. During the last six months I have used these suppositories most freely, and have been more than satisfied with the result. I have tried all sorts of powders, and as the result of my own experience strongly recommend the following, either alone or in various combinations as required.

Firstly, as a styptic I most strongly recommend powdered iron-alum. I generally order one drachm of powdered iron-alum and five grains of iodoform, to be well mixed together, the powder to be inserted into a hollow suppository and used as directed. In the treatment of uterine hæmorrhage I am convinced there is no remedy of more universal application, and none on which I could with greater confidence rely. I have used it in severe hæmorrhage from uterine fibroid, from uterine polypus, from uterine cancer, bad miscarriage, and in several cases of menorrhagia at the change of life, and it has never yet failed me. All that is required is to introduce the suppository as high as possible into the vagina, and there leave it. It is as easily applied by the nurse as by the doctor, and is in every way perfectly safe and harmless.

Secondly, as a dressing iodoform stands pre-eminent; in fact, I now seldom use anything else. This, when combined with from a quarter to half a grain of morphia, forms by far the best dressing for uterine cancer that I have yet tried.

Thirdly, morphia, either alone, or, as I generally now use it, in combination with either or both of the above, is a great aid to the physician and comfort to the patient.

After attention has once been drawn to this simple mode of applying these various applications, the numerous uses to which they might be put in the various vaginal, uterine, and rectal discharges and diseases will occur to all. I have only very briefly ventured to suggest the use of those which in my own hands I have found deserving of confidence. I have no doubt that hundreds of the profession are at present using this mode of dressing; but, on the other hand, I know that there are hundreds who are not, and it is to persuade those who have not yet tried them that I venture to bring this subject forward.

[1] There is always, of course, the alternative previously referred to and preferred by Dr. Broadbent, of thrombus by the direct route of the pulmonary vein; but this would not cover the case of the divided rib-ends.

[2] Read before the Leeds and West Riding Medico-Chirurgical Society.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum allorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

CHARING-CROSS HOSPITAL.

TRANSVERSE FRACTURE OF THE LEFT PATELLA; OPERATION; CURE.

(Under the care of MR. J. ASTLEY BLOXAM.)

THE question as to the best treatment in cases of fracture of the patella is one which still occupies the attention of practical surgeons: whether to treat the fracture by means of splints, strapping, Malgaigne's hooks, or other apparatus, or to operate, as in this case, sewing the fragments together, using strict antiseptic precautions and drainage. Could the element of danger which follows a compound fracture in which the knee-joint is opened, even under such precautions, be eliminated, as it has not yet fully been, no doubt in healthy subjects this cause of immediate operation would be generally accepted. This patient recovered, with a limb the utility of which is hardly impaired, and the success obtained with close union of the fragments is much better than after the employment of the apparatus in ordinary use, excepting in a few isolated instances.

Walter T——, aged twenty-five, a carpenter, was unloading a van on July 19th, and on getting down he caught his heel between two pieces of wood and was thrown off the cart on to an iron grating in the roadway. He distinctly remembers hearing something snap, and on trying to rise was unable to do so. He was brought to the hospital and found to have fractured his left patella transversely. On admission a back splint was applied, the leg bandaged, and the patient put to bed, an ice-bag being kept applied to the joint, which felt hot, and was somewhat swollen and tender.

July 24th.—This afternoon Mr. Bloxam made an incision two inches and a half in length immediately over the patella, opening up the bursa and clearing out the blood and clots. He then separated the anterior surface of the patella from the aponeurotic tissue, and a hole was then drilled through the upper fragment obliquely from above downwards, and a similar one in the lower fragment in the opposite direction. A piece of stout silver wire was then passed through the holes and tightened, and the edges of the fractured patella brought into close apposition. A counter-opening was made to the outer side of the knee-joint, and a drainage-tube inserted. The edges of the incision were then stitched together with silver wire sutures, another drainage-tube being inserted. The whole operation was performed antiseptically, and the limb placed on a long back splint and slung.

25th.—Patient passed a restless night, and was given a one-grain opium pill at 8 P.M. and again at 12. He has no pain in the knee. Temperature 100·8°.

27th.—Patient is feeling comfortable, and takes his food well. Temperature 99°. Tongue clean.

28th.—Wound was dressed to-day with antiseptic precautions; it looked healthy, and the edges seemed to be healing by first intention. The drainage-tube was shortened by half an inch. Patient slept well last night, and is in no pain. Temperature 98·8°.

31st.—Patient is doing well. The drainage-tubes were removed and the wound syringed, and everything looked healthy.

Aug. 12th.—The wound was dressed again this morning and the sutures taken out. The wound into the joint is quite healed, and the one over the patella is reduced to a point. Zinc ointment was applied to several inflamed patches in the neighbourhood. Antiseptic dressing was reapplied.

24th.—Patient can bend the knee with ease, and everything seems to be going on well.

28th.—The splint was removed to-day and fastened on to a pillow. Patient was allowed to get up this afternoon, but not to use his leg.

Sept. 1st.—Patient left the hospital to-day with good union of the patella. He was instructed to use his leg very carefully for some time to come.

OSTEO-SARCOMA GROWING FROM THE SECOND CERVICAL VERTEBRA AND PRESSING ON THE SPINAL CORD.

The following case of retro-pharyngeal growth is very interesting, the symptoms pointing to pressure on the spinal cord and its membranes, with some irritation of the medulla oblongata. It is to be regretted that the further progress of the disease with the sequence of the symptoms which developed later, and a post-mortem examination, could not be added to the account.

Ann D——, aged forty-eight, a widow, was admitted on July 22nd, under the care of Mr. Bloxam, with the following history. She had been quite well up to the last two years, when she noticed that she was getting very drowsy during the daytime—to such an extent, indeed, that she could not accomplish her household duties. She was, moreover, continually being bruised by tumbling against the furniture in consequence of her falling asleep when standing still for a moment. Three months later she felt a lump in her throat, which did not cause her much pain, but inconvenienced her a great deal, and this it has continued to do since. Nine months later her speech began to be involved, the patient experiencing difficulty in articulating distinctly. Her eyesight also suffered, but her hearing was not sensibly impaired. About a week ago her head began to drop to the right, and she had a numbness or want of feeling in her hands. She had an "indescribable feeling" at her heart, and at times her breathing was very short. Curiously enough, she does not sleep well at night, although so drowsy during the daytime. She says she is a good deal thinner than she was two years ago. Family history *nil*. She had several miscarriages after her first child, but no history of syphilis can be elicited. She has had several living healthy children since. The patient herself has only had typhoid fever and small-pox since childhood.

Condition on admission.—Patient is thin and ill-nourished, and her appetite is poor. Pulse slow, regular, and non-compressible. She suffers from constipation, but passes a good deal of urine. Her tongue is furred, and deviates to the right when protruded. Her head also is tilted towards that side. She appears to have great difficulty in keeping awake. Her speech is thick, and can scarcely be understood. When requested to grasp anything, she can do so momentarily, but her grip is soon relaxed, and any object she may be holding falls without her being conscious of any intention to "leave go." Patient says the lump in her throat does not interfere with her swallowing. The pupils are contracted. She can walk steadily. The soft palate is relaxed and deviated.

July 25th.—The patient's condition is the same as on admission. On opening the mouth widely and depressing the tongue, an elastic but firm tumour is seen situated at the back of the pharynx on the right side and pushing forward the palate, which itself does not appear to be involved. The swelling extends across the median line, and as far outwards as the palatine arches; it reaches upwards as far as the hard palate, and downwards below the level of the soft palate. The growth is firm, fixed, and nodulated. No glandular enlargement can be detected in the cervical region. The patient can blow freely through both nostrils. She declined to allow any operation to be performed, and left the hospital. She died within a month or two after her voluntary discharge.

HOSPITAL FOR CHILDREN, PENDLEBURY.

ULCERATION INTO THE GREAT VESSELS OF THE NECK, LEADING TO HÆMORRHAGE, IN A CASE OF SCARLET FEVER; DEATH TEN DAYS AFTER LIGATURE.

(Under the care of Dr. ASHBY).

EXTERNAL hæmorrhage from the great vessels being in scarlet fever a condition of some rarity, the following record will prove interesting both on account of its clinical and of its pathological features. For the account of the case we are indebted to Mr. Macalister, senior resident medical officer.

The patient was a little boy aged two years, admitted into the fever ward on the fourth day of the disease, presenting the usual symptoms of scarlet fever. There was nothing remarkable about the case except that the neck was much swollen on either side, hard, and painful (cellulitis and enlarged glands), and had become so on the day before admission. It is worthy of note that the throat affection was of a mild character, the tonsils being enlarged and injected, but having no deposit upon them. The temperature gradually fell after the sixth day, and on the eighth day was normal, the child apparently becoming convalescent.

On the tenth day the temperature again began to rise, but nothing could be discovered to account for this, except the condition of the neck. Three days later, fluctuation being suspected on the right side, a careful incision was made over the softer part down to the deep fascia, which in turn was opened, and the wound enlarged with dressing forceps. Plenty of serum, but no pus, escaped at the time, but on entering a director on the following morning a quantity of thin watery-looking pus flowed along its groove, and the wound was drained and continued to discharge freely during the following week. During this period the temperature became better, varying between 97·6° and 101·6° in twenty-four hours, but the child continued very weakly, and showed no tendency to improve, although treated with appropriate remedies.

On the twenty-fourth day of the disease, the nurse, who had left the child but a few minutes previously, discovered him saturated with blood, which was freely escaping from the external wound in the neck. She very promptly arrested this flow by plugging the wound with the finger. When seen almost immediately afterwards, the child was extremely collapsed and blanched, restless, and sighing deeply. No radial pulse was perceptible. Pressure having been applied over the vessels, stimulants were given both by mouth and hypodermically, the pelvis was raised and the extremities bandaged, and in the course of an hour the wound was enlarged and explored. The muscles and glands were found bared and the surrounding tissues softened; the fascial structure had in great measure disappeared. On removing the pressure the bleeding did not of itself recommence, owing to the collapsed state of the boy, but on an attempt being made to plug the wound with strips of carbolised lint, at once a flow of bright arterial blood took place, and in such amount as to render it evident that either the main vessel or a large branch must be the seat of hæmorrhage, and further and deeper exploration failing to discover the bleeding point, it was decided to ligature the common carotid. This was done immediately below the omo-hyoid, which was divided to give more room. The discovery of the vessel was rendered a matter of great difficulty, partly owing to the inflammatory matting together of the tissues and in part to the absence of pulsation, so that there was little to guide one in distinguishing between the vein and the artery. As a result of this the sheath of the vein was at first opened slightly, the blue colour being the first indication of the mistake. A small opening was made in the carotid compartment and a strong catgut ligature applied. No anæsthetic was given, and the patient showed no indication of pain throughout the operation. Judging roughly from the amount of blood on the surroundings about seven ounces (fluid) must have been lost. At 2·30 P.M., an hour after the operation, the patient was still pulseless and unconscious. Ether was injected together with two minims of solution of sulphate of atropine. At 4 P.M. he seemed to be dying, gasping at long intervals, and extremely blanched. Temperature 95·6°, and

as a *dernier ressort* two ounces (fluid) of a solution of sulphate of soda (two ounces to the pint) at 100°F. was slowly injected into the loose cellular tissue of the axilla, where it formed a large swelling. It was very rapidly absorbed and the child became better, took some peptonised milk, and at 8 P.M. was quite conscious and taking his nourishment well. At midnight he was very restless, but less blanched. Pulse 180, quite perceptible at wrist. The feet and legs were now enclosed in a thick covering of cotton-wool, the bandages reapplied, and one minim of tincture of opium given. Temperature 102°.

Twenty-fifth day.—Passed a restless night, sleeping at intervals. The pulse is full, bounding, and hard, 176. He takes his food well. Temperature 103°. The wound looks rather red; dressed with iodoform. On removing the coverings from the extremities, the toes of the right foot were found to be almost black, and colder than the surrounding parts. Some bullæ had also appeared on the dorsum of the foot and ankle, and there was no sensibility in these parts. Warm cotton-wool was applied.

During the next few days there was continued improvement. The wound kept sweet and looked healthy. The toes recovered in great measure, only about half of the terminal phalanx of each drying up, and a line of demarcation forming between this and the recovered portion.

On the thirtieth day, at 7 A.M., some oozing took place from the wound, which at once stopped on the application of cold, and was at first thought to have occurred from some granulations; but four hours later a sudden gush of dark venous blood took place, and, on exploring, the vein was found in part bared, but the bleeding point could not be determined. The hæmorrhage recurred three times within the next twenty-four hours (plugs being employed to arrest it each time), and at 4 P.M. on the thirty-first day, during a fourth attack, Mr. Wright made a careful examination, and found a small opening in the sheath of the vein from which the blood escaped; this he enlarged, and, two points of hæmorrhage becoming evident, he ligatured the vein above and below these, but immediately afterwards the blood flowed from a perforation still higher up, and he applied a third ligature above this. The tissues of the vein were soft and friable, tearing away in the forceps.

At midnight on the thirty-second day hæmorrhage again occurred, and this time from a part of the vessel lying so high up and deep in the neck as to be inaccessible to ligature. It was at this time noted that the child had complete paralysis of the left upper limb and paresis of the left leg. He could not shut his left eye. Sensibility was also impaired on the left side. The intercostal muscles and diaphragm acted equally, and the pupils were equal and reacted readily. He had remained in a condition of great prostration since the venous hæmorrhage commenced.

Thirty-third day.—Purpuric spots appeared on the right ear and cheek; he now, for the first time, absolutely refused nourishment, and nutrient enemata were given. He gradually became weaker, and died on the thirty-fourth day of the disease.

Necropsy.—There was general bloodlessness of the organs, which appeared otherwise healthy. The blood was pale, and the spleen enlarged (weighed three ounces). The brain was anæmic. No emboli were found. The thoracic viscera and structures on the right side of the neck were removed *en masse*, and on subsequent dissection presented the following characters:—The carotid artery, from the seat of ligature up to the point of bifurcation, had entirely disappeared, and the walls of the remaining upper part were so thinned and soft as to tear like wet tissue paper when seized with the forceps. Below the ligature the vessel was filled with clot. The vein was in a similar softened condition and had four perforations, one of these almost immediately above the highest ligature and beneath a gland. The sheath, which had disappeared both from vein and artery from a little below the point of carotid ligature to the bifurcation, was separated from the vessels above and below these points, and in the anterior mediastinum, immediately over the pericardium, was expanded into a small cavity containing thin purulent fluid.

Remarks.—Although sloughing into the internal carotid from the throat is comparatively common in scarlet fever, there are very few cases recorded where the hæmorrhage has occurred from without. Among others, Dr. Kennedy in his account of the epidemic in Dublin 1834-42 reports three cases, in two of which the vein alone was opened into, and in the third there was no post-mortem. In the latter and one of the other cases the blood escaped from an opening which had been made into an abscess some days previously; in the remaining case a large slough formed, dissecting out glands, muscles, and bloodvessels. Fatal hæmorrhage through the external auditory meatus has occurred several times, as recorded by Graves, Professor Porter, and Dr. P. J. Hynes, and in one such case the child recovered after the carotid had been ligatured by Mr. Bennett May. It would seem that the destructive processes leading to this perforation of the vessels are of two kinds. In the one, the peri-glandular cellulitis and abscess is followed by softening and dissolution of the tissues (colliquative necrosis). In the other, large sloughs form and separate, laying bare many of the deeper structures; but, generally speaking, the vessels, and more particularly the arteries, are the last to be destroyed, and several times complete recovery has ensued where the sheath of the carotid and the internal jugular has been exposed without the occurrence of hæmorrhage.

NEWCASTLE-ON-TYNE INFIRMARY.

LARGE LOOSE CARTILAGE SUCCESSFULLY EXTRACTED FROM THE KNEE-JOINT OF A PATIENT AGED EIGHTY YEARS.

(Under the care of Mr. FREDERICK PAGE.)

M. G——, a woman aged eighty, was admitted into the infirmary on Nov. 5th, 1885, with the following history. For the last five or six years she had suffered from pain in the left knee-joint, and was aware of a loose body in it which she was able to push from one part of the joint to another. On Nov. 1st she fell upon her knee. Considerable pain and swelling of the joint followed, and for this she was admitted into the hospital. The limb was kept at rest on a MacIntyre splint.

Dec. 15th.—All inflammation having subsided, a free incision was made into the joint under carbolic acid spray, and a loose cartilage extracted. The cartilage was peculiar in appearance, not unlike a flat oxalate of lime calculus. In length it measured 2 in., in breadth 1½ in., and ⅔ in. in thickness. It weighed 250 grains. The wound healed kindly.

29th.—The patient was able to move about the ward readily.

The case is interesting from the age of the patient, and from the size and peculiar appearance of the loose body.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Enteric Fever at Suakim.

AN ordinary meeting of this Society was held on Tuesday last, Dr. George Johnson, F.R.S., President, in the chair. Drs. Robert Maguire, Harrington Sainsbury, John McDonagh, and Messrs. C. H. Golding Bird, and B. Wainewright were elected Fellows of the Society.

Dr. J. E. SQUIRE read a paper on Enteric Fever at Suakim, with some cases of Malarial Enteric or Typho-malarial Fever. By the courtesy of the medical officers of the Suakim Field Force, the author was entrusted with the charge of a division of the Base Hospital at Suakim, and was thus enabled to see much of the fever which occurred among the troops. The analysis of nearly eighty cases shows that, though the large majority—about seventy—were of the ordinary enteric fever type, as verified in two cases by necropsies, some were so modified by climatic causes as to merit the designation of malarial enteric. Two or three showed stronger evidence of malaria. One of these, believed to be enteric during life, was found post mortem, after four weeks' illness, to have no specific enteric lesions at all; to this class of cases the term "typho-malaria" might be restricted. In two of the fatal cases hæmorrhagic effusions occurred under the conjunctivæ or in some parts of the skin; these cases were not due to scurvy, the diet of the troops being varied with fresh meat and vegetables. Typhus was unknown in the force. Diarrhœa was a prominent symptom in all the cases. As regards the cases of enteric fever, it would seem that the disease was imported from Cairo, and that the infection was spread by the air; the use of none but condensed water for

drinking and cooking purposes excluding water as a means of transmission. In opposition to the views of some Indian and army medical authorities, the seasoned troops, represented by the East Surrey Regiment from India, were attacked earlier than those unused to tropical climates, as represented by the Guards who came direct from England, and the mortality was not proportionally greater among the younger soldiers. Cases of enteric fever were admitted into the Base Hospital soon after it was opened, in March; the malarial cases did not occur till some two months later. Seventy-three temperature charts and some cases in full were given in illustration of the points referred to in the paper.—Dr. GEORGE JOHNSON considered that enteric fever could originate from other sources than contaminated water, and mentioned some cases in illustration of its origination from sewer-gas.—Surgeon-Major MEYERS said at the commencement of the campaign he had seen cases of "dysenteric diarrhœa" at the Base Hospital, but this epidemic disappeared when the Guards moved to Tambouk. Whether true enteric fever was the nature of the majority of cases of febrile illness at Suakim he felt himself in doubt, but was inclined to think it was not true enteric, and was rather disposed to regard dysentery as at the bottom of it, which would not be surprising when we bore in mind the sort of emanations from a soil composed of dry fæces and sand, the latter constituent having no deodorising properties. Rose spots during life and typical ulceration after death were, in his experience, rarely met with. The peculiarity of many necropsies was a remarkable form of extensive sloughing round the ileo-cæcal valve, totally different from what he had seen in enteric fever in this or any other country.—Dr. MARSTON dwelt upon the great influence of age and recent arrival in a tropical or subtropical country in increasing the susceptibility to enteric fever, and he illustrated this by some forcible figures showing the percentage liability to die of this fever of men under twenty-five years of age during their first and second years of service in India, as compared with older men of longer service in that country. The amount of enteric fever in a newly-arrived regiment, as compared with a more acclimatised one, showed the same thing. The facts came out year after year with a monotony which left no room for doubt. And it was the same thing in war; in Afghanistan and Egypt, and in the French Army during the campaign in Tunis. As the second case of enteric fever occurred at Suakim in the Shropshire regiment the day after that of the Surrey regiment, it was impossible for the latter to have been the cause of it. It must be remembered that recent experience has proved that the incubationary period could be prolonged to six or even seven weeks. The cases of fever seen in tropical climates were, in his experience, true enteric fever, presenting its clinical features during life and its morbid appearances in fatal cases. As regards typho-malarial fever, there was no evidence of its existence as a new and perfectly distinct disease, although, of course, a malarious subject might be attacked with typhoid fever and exhibit symptoms of both diseases.—Dr. D. DREWITT had seen cases of fever at Palermo and Sicily in which there were definite sets of symptoms; suggesting that we had to deal with a "chemical" union of typhoid and malarial fevers, rather than with a mechanical mixture. In Dr. Whipham's history of the American rebellion there were narratives showing the great variety of types of disease that were constructed of the union of apparently different maladies; any combination of typhoid, dysentery, and ague being liable to be met with.—Dr. SINCLAIR THOMSON believed that the nature of the soil determines the form of typhoid of which he distinguished various types; the abdominal and diphtheritic being two chief ones. When water was the source of the poison the abdominal symptoms prevailed; but when sewer gas, then the throat was more affected and nervous symptoms were prominent.—Dr. DON had had twenty years' experience of typhoid fever, and had written a paper in a Blue-book for 1870 on the subject. Speaking of typhoid fever in subtropical latitudes, he recognised the civil view which interpreted an outbreak of enteric fever as due to some pre-existing case, and the military view which allowed that the disease could originate *de novo* under certain climatic, dietetic, and like causes. He believed that a nutritive intestinal change preceded the appearance of typhoid fever, and considered that it was just a chance whether this precedent intestinal disease should develop into typhoid fever or not. He declared emphatically his opinion that enteric fever could originate *de novo*.—Brigade Surgeon GRIBBON had medical charge of the *Ganges*, and had no doubt whatever that the disease was enteric fever, for he saw characteristic ulcerations in some necropsies. Most of the cases on board were convalescent; some had been sent with the diagnosis of "remittent fever," "heat apoplexy," and the like, but he believed they were really enteric also. Suakim was not, in his opinion, a malarial locality; northerly winds tend to empty the harbour and southerly winds to fill it, but there was no actual tide; stenches arose during the prevalence of northerly winds. The first case on the *Ganges* occurred in one of the orderlies, curiously enough, and only convalescent patients were then abroad; the orderly had been ashore a few times, but his dietetic and hygienic arrangements aboard were sound.—Dr. BROADBENT said the paper was valuable for the discussion that it had raised, and when coördinated with the larger set of observations of Dr. Marston was still more valuable. The fact of the occurrence of enteric fever at certain ages and on recent arrival in a country teaches nothing as to the specific or non-specific nature of the disease. He felt convinced that there was some other fever met with in tropical and sub-tropical climates, and distinct from, though simulating to a certain extent, the course of typhoid fever. The second tropical fever could hardly be enteric fever modified by climatic and other conditions. Experience has shown that we require some distinct name to express this second affection, and "typho-malarial" was perhaps the best one that could be discovered for a fever which was even more protean than enteric fever in its clinical course. Reference was made to a history in which five officers figured, and had been under the same conditions in Malta; of these, three developed an illness soon after—one was said to have subacute rheumatism, another enteric fever, which lasted three months and ran an irregular course; the third case came under Dr. Broadbent's own care, and it had nothing in common with enteric fever, if we except the fact of protracted high fever with some intermissions. He said that Murchison in his Indian experience had remarked on the protracted duration of the high temperatures of these cases, which resembled in nothing the pyrexia of enteric fever. He considered that it was very necessary to differentiate these fevers, which are still confused, for the typho-malarial form departs in the most complete way from enteric fever, being really a distinct fever that simulates typhoid fever only to a very limited extent.—Dr. HARDIE considered that an epidemic limited to a few individuals in the community attacked was evidence of the typhoid nature of the illness; the appearance of the "typhoid tongue" on the third or fourth day he regarded as of considerable diagnostic significance.—Dr. SQUIRE, in reply said he was glad to hear Dr. Broadbent express the opinion that there were two distinct diseases to deal with, for it concurred with his view stated in the paper.

MEDICAL SOCIETY OF LONDON.

Subperiosteal Resection for Acute Necrosis.—Cerebral Abscess and Empyema.

AN ordinary meeting of this Society was held on Monday last, Dr. W. M. Ord, President, in the chair.

Mr. BERNARD PITTS read a paper on Subperiosteal Resection for Acute Necrosis, and exhibited a living specimen of the first case, which was that of a girl aged fifteen, who was admitted to St. Thomas's Hospital on Nov. 25th, 1882, with swelling of the lower end of right tibia. For one week the swelling and pain had been present, and an incision was made above the ankle, a quantity of matter escaping. At the time of admission the girl was in a prostrate condition, with a temperature of 102°. The incision was freely enlarged and the limb placed on a Neville's splint. The patient steadily lost ground, and on Dec. 16th, or thirty-five days from the beginning of the disease, an operation was performed, in which the lower two-thirds of the tibia and ankle-joint were exposed. The lower half of the tibia was found to be necrosed, with separation at the lower epiphysial line; the epiphysis was almost entirely destroyed, a mere shell of bone representing the external malleolus remaining; the upper surface of the astragalus had lost its cartilage, and was granulating. There was a line of separation at the upper end of the necrosis; this fact decided Mr. Pitts to try to save the limb, which it was till then thought required amputation to save life. The tibia was sawn through a little above the line of demarcation, so that three-fifths of

the tibia (measuring five inches and a half) were removed, the periosteum at the back of the bone being carefully preserved; it was felt to be roughened by the presence of a fine layer of osseous granules; the surface of the astragalus was thoroughly scraped, and the epiphysial remains removed. Recovery proceeded rapidly, and on April 28th the patient left the hospital, the wound being healed, with the exception of two sinuses at the upper part. On June 23rd a small residual sequestrum was removed, and on August 21st a sinus of the foot was scraped. Since then the leg had remained perfectly sound. It is now in a very useful condition, with but slight deformity—shortening of three-quarters of an inch, and a tendency to varus, with increased mobility at the tarsal joint. Four years have elapsed since this case came under Mr. Pitts' care, so that he has had time to observe the ultimate result. The second case, a boy aged seven, had been under Sir William Mac Cormac's care from October 11th, 1881. The disease was situate at the same site as in the previous case. An incision was made over the internal malleolus, which allowed the escape of some exudation. Twenty days after the first onset of symptoms Sir William detected separation at the epiphysis, and two inches and a half of the tibia were excised. Regeneration of the bone rapidly took place, and the patient was up on Dec. 23rd. Some months later Mr. Pitts saw the case, and there was but little shortening or deformity. Mr. Pitts said he divided cases of acute necrosis into five classes and indicated the treatment:—1. Acute necrosis of the entire shaft, with separation at the epiphyses, ought to be treated by removal of the dead shaft. 2. Where one or both joints were implicated also, early interference was more imperatively demanded, but in some cases amputation would be required. 3. For limited necrosis, time for complete separation of sequestrum might usually be given. 4. Acute necrosis of either end of a long bone was illustrated by the second of the cases related. 5. Of acute necrosis with total destruction of the epiphysis and involvement of the joint, the first case was an example, showing that the limb may sometimes be preserved.—Mr. H. H. CLUTTON said Mr. Pitts' case proved that the surgeon need not hesitate to remove living bone with the dead, for a good result could still be obtained.—Mr. J. H. MORGAN mentioned similar cases, and some that came under his own treatment.—Mr. WALTER PYE said the case was precisely like one that he had shown at the Royal Medical and Chirurgical Society. The fibula may act as a direct splint in maintaining the shape of the limb, and in cases of entire necrosis of the diaphysis of the tibia he thought that the fibula was most useful in the further course of a successful case; indeed, he doubted whether a good result could be obtained without it.—Mr. PEARCE GOULD remarked on the adhesion of the new bone to the dead, and questioned how far this might be taken as evidence of the life of the original bone, whether, indeed, the whole of the shaft of the tibia was dead. The difficulty of knowing how deep the necrosis extended was rather against the early removal of sequestra, for much new bone might be removed, and the ultimate issue of some cases showed that the sequestrum was very small compared with what was expected. Cases illustrating these points were narrated. The general condition rather than the state of the local lesion should probably guide the surgical treatment.—Mr. BERNARD PITTS, in reply, said that he ought to have added a further division in his classification—viz., to include entire necrosis with complete destruction of the epiphysis. He did not quite know how to determine the depth of necrosis unless the surgeon adopted the plan of M. Ollier of Lyons; but such an operation was of doubtful value, and a bloodless exploration hardly possible.

Dr. D. W. FINLAY read a paper on Empyema with Cerebral Abscess which appears in full in another column.—Dr. HADDEN narrated a similar case in a man aged twenty-eight, in whom the pyo-pneumothorax was due to a phthisical cavity; abscesses were found in the frontal and occipital region of the brain.—Dr. DE HAVILLAND HALL also related a similar case in a young woman, in whom the cerebral abscess appeared to have existed for some time.—Mr. BERNARD PITTS said that in the case Dr. Hadden referred to he found that the drainage-tube was kinked by new bone, necessitating extensive resection of the ribs.—Dr. J. J. PRINGLE read the notes of a somewhat similar case, which differed, however, in the important particular that it recovered. It is published in the Middlesex Hospital Reports for 1883.—Dr. BROADBENT remarked that the embolism started from the pulmonary circulation: a portion of a thrombus became detached from a thrombosed pulmonary venule, and so rapidly reached the left ventricle. He agreed that frequent washing out of empyemic cavities was to be deprecated.

ACADEMY OF MEDICINE IN IRELAND.

Albuminometry and Esbach's Tubes.—Embolism of the Central Artery of the Retina.

AT the meeting of the Medical Section on Dec. 18th, 1885, Dr. CRUISE read a communication on the Quantitative Determination of Albumen and Urea in Urine. The simple clinical methods which he demonstrated were those of Dr. G. Esbach, and which have recently been described in our columns (THE LANCET, Jan. 23rd, p. 153).—Dr. A. W. FOOT, having used Esbach's test for two or three years, found one source of dissatisfaction with it. Esbach's direction was to read the number of grammes per litre on a graduated scale after allowing the urine and reagent to stand for twenty-four hours; but in twenty-four hours more a very much less degree would be registered. So far as he had read, Esbach had not noticed the fact that the precipitate condensed day after day into smaller bulk.—Dr. TICHBORNE did not think this objection had been proved. The test was an approximation for practical purposes, and Dr. Esbach had graduated his tubes to be read after standing a given time. Of course, precipitates standing would gradually get more dense; but the tubes were graduated on the understanding that they would be read after standing twenty-four hours. When picric acid came out, he tried some experiments as a qualitative test against the old nitric acid test, which, when properly applied, was one of the best. When poured down the side of the test-tube, he found the nitric acid test was slightly more sensitive than picric acid. At the same time, picric acid had the great advantage that, when visiting, it was easily carried in one's pocket. In urine there were occasionally albuminoid bodies that could not be got at by the ordinary methods of coagulation or boiling.—Dr. J. A. SCOTT pointed out, as an objection in connexion with picric acid, that other things besides albumen came down in the cold solution if added to it—for instance, where the patient was taking quinine. In estimating the quantity of urea there was some trouble in calculating according to the tables supplied. Other methods enabled an estimate to be made by percentages, thus dispensing with book-work.—Dr. WALTER G. SMITH had himself twelve years ago, in the Adelaide Hospital, tried picric acid as a qualitative test, and he saw no reason for preferring it to the better-known and more old-fashioned test which had not yet been dispossessed from practice. Experiments made in Christiania showed that the most delicate qualitative test was the old nitric acid test, and accordingly Heller's method of using nitric acid as a test had maintained its pre-eminence for the recognition of small amounts of albumen.—Dr. FALKINER said the test might be clinically correct as regards the state of albumen in the urine, but it was not absolutely correct. The nearest approach to a correct quantitative clinical test was Oliver's method, whose basis was also citric and picric acid, the quantity of albumen being estimated by the disappearing point of a dark line which was placed behind a test-tube of known dimensions. With regard to urea, Professor Emerson Reynolds had some years ago made a complete apparatus for estimating the amount of urea, not by measuring the gas but the quantity of water displaced by the gas evolved, and he gave a table of calculations.—Dr. FINNY said he had tried Esbach's method, and, not considering it useful even in the way of saving time, he had discontinued it. Indeed, it was no safer than the old method of boiling the urine and allowing it to stand. There was one great objection to its use which he had found in testing urines—namely, that where there was a large amount of albumen the test lost much of its readiness as a clinical method, as it had to be so frequently repeated before the urine could be sufficiently diluted to render it an accurate test for albumen. Having tried both picric and nitric acid, he found that in the majority of cases the nitric acid test was the most accurate and trustworthy.—The PRESIDENT, like Dr. Foot, had observed the progressive condensation of the coagulum. According to Esbach's notion, the reading should be made after twenty-four hours. As to the albuminoids, it was true that a certain amount of confusion and difficulty would arise, but the method sufficed for general

clinical purposes without seeking scientific accuracy. The same difficulty had been raised by Dr. Scott with regard to quinine and peptones, but when it was known the patient had taken quinine allowance could be made. There was no difficulty in reading from the tables the results in the urea test, as where the two numbers crossed it could be seen at a glance. He had been using the hypobromine solution for some months, and it had kept. Whenever he had a doubt as to the efficacy of the solution, he added a little more; thereupon, if it effervesced or fresh decomposition set in, it was clear there had not been sufficient; or if the solution lost any of its olive-oil colour, he added a little bromide. The absolute quantity of the hypobromine solution was unimportant, provided it was rather in excess. He had tried Oliver's test for the quantitative analysis of urine and of sugar, and he found it difficult to determine from the obscurity of the light the exact point. Besides, Oliver gave only a percentage, from which it was necessary to calculate back, and his test of sugar was still more difficult. The great advantage Esbach's instrument possessed was that the analysis could be made in about five minutes, and probably with as much accuracy as any other.

Mr. ARTHUR BENSON read a paper on a case of Partial Embolism of the Inferior Division of the Central Artery of the Retina associated with repeated attacks of Chorea. The patient, a house painter, aged twenty-one, had had rheumatic fever seven years ago Three years ago he had an attack of left hemichorea. Two years ago another attack of more general chorea, and last year a third attack of chorea. On the 14th of last October he suddenly became blind of the right eye; in a few minutes vision began to clear from below upwards, and in fifteen minutes the lower half had quite cleared to the horizontal line, passing through the fixation point. There the improvement abruptly ceased, and has not since proceeded. The ophthalmoscope showed œdema of the lower half of the retina and "a cherry-red spot" at the macula. The vessels (veins and arteries) were all filled with blood, and pulsation could be produced with pressure, showing circulation had been re-established at that time—i.e., fifteen hours after the eye became blind. The vessels of the lower half of the fundus were not quite so plumply filled as those of the upper half. In a few days there were evidences of atrophy of the disc and shrinking of the retinal vessels in its lower half; and as the œdema of the retina diminished, the atrophic changes increased and the vessels shrank markedly. The diagnosis was that an embolus for a time partially blocked the central artery before its bifurcation, and subsequently got shifted into the inferior division and partially blocked it, for the vessels were all carrying blood in the right direction, showing that the obstruction was not complete. The patient had never had any similar attacks. His heart and kidneys were carefully examined, and nothing abnormal discovered. He was in other respects healthy, and there was no evidence to show where the embolus came from. The case was of interest as bearing upon the embolic theory of the pathology of chorea.—Dr. NIXON said there had been no suggestion where the embolism came from. The patient was stated to have had a history of an attack of rheumatic fever, yet the heart was perfectly sound. However, the fact that the patient had had an attack of hemichorea in the left side, and that he had an affection of the right retina, clearly showed that the disease was embolic, and it was difficult to say where it came from, except from the heart. Where there was no peripheral disease with which to connect the embolism, it must be assumed that it came from the heart.—Dr. PURSER observed, as regards Dr. Nixon's assumption that the existence of embolism necessarily proved disease of the heart, that not one out of fifty cases came from the valves of the heart. In a great many cases the deposits on the valves of the heart were too firm to be washed off. It was much more likely to have resulted from thrombi which became broken up and were carried away in the current of the circulation. The examination of the emboli showed that they do not come from the valves of the heart, but from coagula in the bloodvessels.—Dr. FOOT said the patient had been under his care, affected with hemichorea on the left side, in his arm, then the leg, and lastly the face. At that time he had no cardiac murmur, but he gave a history of rheumatism, and that he had had a rheumatic ailment about nine months before the attack of hemichorea. It was then the "fad" to treat chorea hypodermically with arsenic, and the patient was injected with it twenty-six times, beginning with five and going up to thirty minims. At fifteen the strength was doubled to minimise the bulk, nor was it stopped until a quarter of a grain of arsenic had been injected under the skin. He believed that camphoretted water would have done as well. —Dr. BENSON, in reply, said he had seen but a very small percentage where a distinct heart lesion was discoverable.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

A MEETING of this Society was held on Jan. 15th, Professor Jessop, President, in the chair.

Thrombus.—Dr. CHURTON showed a heart containing a softening thrombus the size of a large walnut in the apex of the left ventricle, and two smaller masses as large as beans. The bases of the latter were not entangled in trabeculæ, but lay upon perfectly even surfaces on the septum and posterior wall. Another heart was shown in which there was a broad patch of endocarditis covered with vegetations, extending from the anterior flap of the mitral valve to the upper limit of the auricle, the rest of the auricular endocardium being quite smooth.

Antiseptics in Operations on the Eye.—Mr. BENDELACK HEWETSON read a paper on this subject, in the course of which he dwelt on the value of the eucalyptus spray, which he suggested some time since as an additional aid towards making cataract and other major operations on the eye completely antiseptic. He has observed in a large series of cataract operations that there has been less irritation and pain following the operations, the wounds have healed more quickly, and mishaps, such as eyes suppurating after the performance of such operations in hospital as well as private cases, have largely decreased. In the case of cataract operations the following precautions were taken:—1. Immediately before operation the eye was washed with carbolic lotion, 1 in 80. 2. Cocaine, if used, was applied in an aseptic solution. 3. All instruments were washed in carbolic lotion, 1 in 60. 4. The operations were performed under the eucalyptus air spray. 5. The eye was subsequently covered by a layer of salicylic silk enclosed in two layers of absorbent wool, and freely exposed to the eucalyptus spray.

Removal of Os Calcis &c. for Strumous Disease.—Dr. ALFRED SWANN, showed a patient aged eight from whom he had three years previously removed the os calcis, astragalus, and the malleoli, on account of strumous disease of eighteen weeks' duration, which had originated without any apparent cause. The child was able to run and walk perfectly, the movements of the ankle-joint appearing normal. Dr. Swann also showed the bones removed, which presented the appearance of strumous ostitis.

Labio-glosso-laryngeal Paralysis, with Atrophic Paralysis of the Hands.—Dr. BARRS read the report of this case. The patient, a man aged twenty-nine, had been continuously under Dr. Barrs' observation since Aug. 25th, 1885, when he presented himself in the out-patient room complaining of nasal voice and some slight difficulty in swallowing. In addition to the marked alteration in the voice, there were noticed a want of movement of the palate when touched and impaired lip movements for all purposes of articulation and other functions. At this time no appreciable impairment of the tongue movements was noted, and beyond passage of food into the nose there was no affection of deglutition. There was no history of syphilis, diphtheria, or lead poisoning. In September the tongue was first noticed to be tremulous and unsteady, but it could be protruded to normal point, and there was marked increase in all other symptoms. In October some loss of power in the left thumb was reported, and in November there was marked wasting of the muscles of both hands, but much more pronounced on the left side. The electrical reactions of both hand and face muscles were normal, and had continued so up to dates though all manifestations had rapidly increased in intensity. At present there is entire loss of all articulation, his attempts at speech being quite unintelligible; phonation is unaltered, and the laryngoscope shows no change in cord movements. The "visage pleurard" is well marked, and the mouth is large from falling of the lips. The tip of the tongue can just be made to advance beyond the line of the teeth; the organ is the seat of marked fibrillous contractions, and is, perhaps, smaller than natural. The atrophic palsy of the hands is well marked, and the left is assuming a slightly clawed attitude. There is well-marked increase of the

wrist and elbow tendon reflexes. The knee-jerks are also increased, and the patient states that now and again the legs become stiff, but no suggestion of any spastic condition is at present to be noticed. The case is now clearly progressing very rapidly towards its complete development, though of only eight months' duration. Dr. Barrs suggested that the case might ultimately develop into one of amyotrophic lateral sclerosis as described by Charcot.

Dr. JACOB showed by the lime-light some lantern views of patients suffering from Bulbar Palsy, and the histological lesions found in such cases. He also related a case at the time under his care, in which there were symptoms of bulbar paralysis combined with wasting of the arms and greatly increased reflex movements of the legs, with a staggering gait.—Dr. CLIFFORD ALLBUTT referred to the views of Duchenne, the first describer of the disease, and remarked on its identity with progressive muscular atrophy being now established, although this was strenuously denied by its original discoverer.

SHEFFIELD MEDICO-CHIRURGICAL SOCIETY.

A MEETING of this Society was held on December 17th, 1885, Mr. R. J. Pye-Smith, President, in the chair.

Extra-uterine Fœtation.—Mr. EDWARD SKINNER related this case, occurring in a woman aged thirty-four. She had good health previously to marriage. She recovered well after a severe labour in October, 1883; menstruated eight weeks afterwards, and then not again for nine months. At the end of February, 1885, the first bone was passed per rectum; several have been passed since. She suffers little or no pain, except after a hard day's work, and just before passing a bone. In August last one of the bones of the head was removed from the rectum. The vagina and rectum were examined, but no opening could be detected. She menstruates regularly, and is still well and going about her duties. Mr. Skinner exhibited the fœtal bones.

Calculi in Kidney.—Dr. LAW related this case and showed the specimens. The patient, a woman aged thirty-seven, had a good family history. She caught cold in August, which was followed by pains in the legs, cold sweats, and great prostration. Pain suddenly commenced on Aug. 28th, whilst lying down, in the hypochondriac region, and was followed very shortly by jaundice. The post-mortem revealed a large abscess in the under-surface of the right lobe of the liver connected with another in the upper part of the right kidney, which latter was filled with irregularly shaped dark-coloured calculi; one of these also lay loose in the lower abscess. The right pleura contained fetid pus, which had made its way through a perforation in the diaphragm. The kidney was opened, and calculi were found *in situ*. The kidney was enlarged and thickened.

Cases of Lead-poisoning from Drinking-water. — Mr. THOMAS related a few cases, out of a number which had come under his observation during the last three years, of decided lead-poisoning from drinking-water. He had in three instances carefully ascertained that no other cause was present. The water usually drunk had been from a pipe coming direct from the main, and having been allowed to run for five minutes a specimen was taken and analysed, when lead, ·21 gr. per imperial gallon or more, was found by Mr. Allen, the analytical chemist, who took great interest in the subject. An average specimen of urine passed during twenty-four hours contained from ·19 gr. to, in one case, ·28 gr. of lead per imperial gallon. In many of these cases the blue line on the gums was not present, but was substituted by a red line. Dr. Thomas had found this not at all uncommon. The indications of the presence of lead had been griping and colicky pains, with constipation, aches in back and limbs, the blue or red line along the gums, disinclination for mental or bodily exertion, dropped wrist, &c. He considered that the condition of water was owing to the acid which the water from one source contained acting on and making soluble the lead of the pipe reaching from the main to the house, and proposed as a remedy in houses the use of a certain filter which deprived the water of its lead and of its acidity. To the water might with advantage be added some carbonate of lime. As a general remedy for the town he suggested for consideration the advisability of utilising charcoal as a filtering agent, carbonate of lime as an antacid, or of both. The question of having the interior of leaden pipes lined with some material not easily acted upon by acids might be considered, but if the former plan were adopted, the latter would not very likely be required.

Dr. PORTER read notes of six cases of Lead-poisoning due to Contaminated Drinking-water, five of which had occurred within the last six months. Three of his patients were employed in the same workshop, where the water had to pass through 300 yards of leaden service-pipe. In every case the symptoms were characteristic, and the water was found to contain more than one-twentieth of a grain of lead per gallon. Dr. Porter alluded to the so-called protective coating produced by hard waters, which was itself a source of danger, a hot dry summer favouring its decomposition. Sulphate of lead was soluble to the dangerous extent of three grains per gallon, and though the carbonate was less so, it might be influenced by water containing an excess of CO_2. Referring to Dr. Thomas's paper, Dr. Porter said he believed a red line on the gums had no connexion with lead, but was often a symptom of dyspepsia. As to the effects of the use of a tooth-brush on the blue line, he had often remarked it was only partial, due to the removal of the tartar, which facilitated its formation, this tending to prove that the deposit of sulphide of lead was interstitial. He had often seen the blue line around molar teeth, disproving the assertion that light was essential to its formation.

The discussion of this subject was adjourned to the next meeting.

CHESTER MEDICAL SOCIETY.

A MEETING of this Society was held on January 8th.

Mr. JAMES TAYLOR, the President, delivered an address, in which, after reviewing the work of the Society during the past year, and alluding to the first death amongst its members, that of Mr. Allan C. McEwen, he passed on to examine the condition, successes and deficiencies of the medical profession, as painted by Bacon at the beginning of the seventeenth century, and to consider how a study of these might still guide us in our means of learning and applying our knowledge.

Aborted Ovum.—Dr. DOBIE exhibited an ovum aborted about the eighth week. The amniotic sac was filled with coagulated blood by which the embryo was surrounded, and which presumably was the cause of the abortion.

Glioma of Brain.—The SECRETARY read notes of a case of Mr. Taylor's and the report of the Pathological Committee upon the brain of a patient, aged forty-two, who was admitted into the Chester Infirmary on Nov. 10th, 1885. He complained of pain on the crown of his head. He walked in an uncertain manner, spoke in an hesitating way, and could not without help raise himself to a sitting posture in bed. He had often fallen down, and on Nov. 16th he walked across the ward and fell suddenly. After that he could not stand without help. After the 20th he had incontinence of fæces, and spoke little. From the 24th he had attacks of violent spasmodic twitching, which were set up by any stimulus such as changing the bedclothes or the cry of a patient in the ward. He died on Nov. 27th. On examination of the brain, a glioma was found in the right frontal lobe, an inch and a half in diameter, and extending about an inch inwards from the surface. The brain-tissue surrounding it was firm and dense, and at its posterior extremity was a cyst containing two or three drachms of clear fluid. Microscopic sections of the tumour made by Mr. Henry Dobie were shown.—Mr. R. S. ARCHER related a case somewhat similar.

Estimation of Urea in Urine.—Dr. KING gave a demonstration of Dr. Squibb's process for the approximate estimation of the quantity of urea in urine. A solution of hypochlorite is made to decompose the urea and liberate its nitrogen, from the measurement of which the amount of urea is calculated.

PRESENTATIONS.—The Committee of the British Hospital at Buenos Ayres have presented Dr. Hanly with a jewel case and an illuminated address as a mark of their appreciation of his important and zealous services to the institution.—The ladies who have attended the recent ambulance lectures at Greenock have presented Dr. W. A. Wilson with a carriage clock, and Dr. J. R. Black with a pocket aneroid, in token of their appreciation of the valuable services rendered in connexion with the classes by those gentlemen.

Reviews and Notices of Books.

Nouveau Dictionnaire de Médecine et de Chirurgie Pratiques. Tome 38: Vac-Vei. Par le Dr. JACCOUD. Pp. 886. Paris and London: Baillière et Fils. 1885.

THE more important articles in this volume of the Nouveau Dictionnaire, which is now rapidly approaching completion, are:—1. Vaccine, by D'Espine. 2. Vagina and Vulva, by Levrat. 3. Varicocele, by Paul Second. 4. Variola, by Balzer and Dubreuilh. 5. Vaso-motor Nerves, by Duval. 6. Vegetations, by Mauriac. 7. Veins: by Beurnier, for their Anatomy, Physiology, and Development; and by Schwartz, for their Surgery and Pathology.

It is pleasant to find that the researches and observations of M. D'Espine have not created in his mind the slightest doubt in regard to the utility of vaccination as a safeguard against small-pox. He gives a rapid sketch of its introduction by Jenner, and discusses, first, the animal origin of vaccine lymph, its evolution in man, and the nature of the virus; and, secondly, the process of vaccination. Vaccine is found in the natural state in the cow, constituting cow-pox, and in the horse, forming horse-pox. It is uniform in its characters, and produces an inoculable but not contagious disease, always benign and creating an immunity for either vaccinal or variolous inoculation. M. D'Espine gives a good and very full description of the two forms above mentioned, and shows how two affections have been confounded under the common name of the grease or horse-pox. The laws in regard to vaccination are more stringent in Germany than in any other country, the act being rendered obligatory before the end of the first year, and revaccination in the course of the twelfth year being also compulsory. The most important recent fact in the history of vaccination is undoubtedly the frequency with which, in view of the danger of propagating syphilis, resort is now had to vaccination direct from the animal. This proceeding, practised in Naples from the very commencement of the century, has only been generally adopted in the principal cities of Europe since the year 1866. No success has attended the experiments of Chauveau to induce vaccine from inoculation of either the horse or cow with variolous lymph. Variola continues to produce variola, and vaccinia vaccinia. M. d'Espine adduces many statistics of interest. Thus, in the State of Würtemberg, the experience of thirteen years and of nearly half a million of vaccinations, shows that the failures occur once in 129 vaccinations, or 0·7 per cent. Again, in relation to the duration of immunity from variola after vaccination, the revaccinations in Germany show that at the age of twelve to fourteen the influence of the first vaccination is singularly enfeebled. One patient is known who has been vaccinated five times at intervals of several years with success. It appears that vanity is so strong in some of the gentler sex that they prefer to be vaccinated on the thigh to the arm, on account of the disfigurement occasioned by the scar. M. D'Espine, we know not with what amount of truth, accuses the Americans of this peculiarity. He recommends the vaccinal powder of Reissner of Darmstadt as very serviceable. It is obtained by desiccating the lymph obtained from several pustules, and when employed is mixed with a little glycerine and water. A fragment the size of a pea is sufficient to inoculate fifty persons. The bibliography is classified and complete. The articles on the Vagina and Vulva and on Varicocele seem to be very fully and carefully written, the most recent researches, even those published during the last year, being incorporated in the text. No less praise can be assigned to the article on Variola by MM. F. Balzer and W. Dubreuilh.

The most interesting article in the present volume is, however, the very long one devoted to the Vaso-motor Nerves, by M. Duval, which extends over 160 pages. In this the learned author deals successively with the anatomy and development of the sympathetic nerve, with its general functions and those of the vaso-motor nerves, with the vaso-constrictors and the vaso-dilators, the existence of which he fully admits, giving the demonstration of their existence, the theory of their mode of action, their course, their centres, and their distribution in the bucco-labial region, the liver, the ear, and the limbs. He discusses also vaso-motor reflex actions and the general part played by the vaso-motor acts in local circulation, vascular tonus, and animal heat, as well as in some special functions, such as erection, absorption, exudation, and secretion. He then considers the action of the vaso-motor nerves in pathology. Lastly, he institutes a comparison between the innervation of the vessels and that of the heart. The evidence demonstrating the existence of vaso-dilators is, on the whole, satisfactory. It may be reduced to the following points: First, the experiments of Claude Bernard on the effects of stimulation of the chorda tympani on the secretion of saliva; secondly, the experiments of Cyon on the depressor nerve, showing dilatation of the abdominal vessels; thirdly, those of Vulpian on the glosso-pharyngeal nerve, showing dilatation of the vessels of the posterior part of the tongue; fourthly, those of Eckhard, showing the effects of division and stimulation of the distal extremity of the erector nerves; and, finally, those of Bernard on the auriculo-temporal of the fifth, and of Schiff on the nervus petrosus superficialis minor. The first interpretation given was that of Duchenne, that there were longitudinal and circular fibres in the vessels, the former being under the influence of the vaso-dilator, the latter under that of the vaso-motor nerves. This view was, however, promptly overthrown by the histologists, who showed that there were no longitudinal fibres. The next suggestion was that of Grünhagen, that the dilator fibres caused an active elongation of the muscular fibre cells, but no satisfactory evidence on this point is forthcoming. A third hypothesis has been advanced, to the effect that vaso-dilatation is due to contraction of the venules, but there is strong opposing evidence to this view. Several other explanations have been given, but M. Duval adduces recent evidence to show that the action of the vaso-dilators is not on the muscles of the vessels directly, but on the vaso-constrictors, on which they exert a restraining or inhibitory influence like that of the vagus on the heart.

The last article on the Veins, occupying 270 pages, is quite a treatise in itself, and may be read with advantage by the most experienced surgeon. The pathology of Varices is particularly well given.

A Manual of Animal Vaccination, preceded by Considerations on Vaccination in General. By Dr. E. WARLOMONT. Translated and Edited by ARTHUR J. HARRIES, M.D. London: J. and A. Churchill.

ALL who are desirous of reading Dr. Warlomont's work in the English language will welcome Dr. Harries' translation of the new Manual of Animal Vaccination which Dr. Warlomont states in the preface was written for the English medical world, and from which he has excluded everything that has not directly to do with this special subject. There is little that is new in this edition, and the manual, although interesting, can scarcely lay claim to rank as a scientific work. It is disappointing not to find more exact evidence of the value of different methods of preserving calf lymph. The statement that 500 cases of vaccination with lymph preserved on ivory points met with 490 successes loses much of its value on account of the omission of any reference to the success in each 100 of insertions. But the author credits vaccine emulsion and pomade with possessing an activity nearly approaching that of living vaccine, and maintaining this activity during a month.

Later he quotes Dr. Allard, of the African Association, who obtained sixteen vesicles for every 100 insertions of stored calf lymph, a result which is far below the success attained with calf lymph produced in this country. A perusal of the work leads to the conclusion we have before expressed, that the use of stored calf lymph does not produce greater success than the use of stored humanised lymph, and that both should give place where possible to direct arm-to-arm or calf-to-arm vaccination. The translator in an appendix has described his own method. We fully endorse his objection to the vaccination lancet being used for other purposes; but we do not agree with the opinion he apparently holds, that the lancet cannot be thoroughly cleansed with the exercise of reasonable care, nor do we think that its unnecessary sharpness is incapable of remedy.

OUR LIBRARY TABLE.

The Asclepiad. No. 9, Vol. 2.—Chilblain circulation is mostly of congenital origin; in many examples it is traceable to premature birth, and in some instances it occurs in those who are of twin birth, but in others the cause of chilblains "runs in families" as if some specific and original taint were at the root of it, like specific disease or struma. This is Dr. Richardson's summary of the pathology of what he aptly calls chilblain circulation. It will be seen that nothing positive is asserted as to the etiology of the affection, which is both difficult to treat and hardly possible of scientific explanation. Many authorities look on the affection as a weakness of the vaso-motor nervous system; others, again, consider that there is an inherent want of vitality in the actual working tissues of the body, and the malady is only met with at those parts farthest from the centre of the circulation because their blood-supply is precarious; but a precarious circulation in distant parts may assuredly be regarded as a predisposing cause of the poor vitality of the tissues. "Temperance and Young Physic" was the address delivered by Dr. Richardson on the occasion of presenting the prize of 100 guineas from the British Medical Temperance Association to Mr. Coryn, student of Charing-cross Hospital; it is an urgent appeal to medical men to prosecute vigorously the war against intemperance. The next chapter is an important physiological one on Pulse-tracings and Cardiac Sounds with the Body Inverted. "As regards the pulse-tracings, the fact that the pulse with the body inverted gives a third or additional wave indicates that the aortic valves, opening back after the arterial recoil has ceased, may allow a column of blood to pass their orifice, under the auricular systole and before the next ventricular systole, with sufficient pressure to cause a second back stroke from arterial tension." There was marked reduplication and accentuation of the second cardiac sound when the body was inverted, and the tracings would seem to show that accentuation and reduplication may be produced by increased vibration of the aortic valves under the influence of augmented pressure. William Cheselden is the subject of the biographical notice, introducing the new era of British surgery, and illustrated by a portrait and an illustration of the house in which his birth took place. Experiments towards the Animal Battery by Compound Synthesis and Micro-electroscopy is a sequel to an essay on an analysis of animal structures by electrical conduction and resistance, in which some particulars were given by Dr. Richardson of an attempt to determine what parts of the animal body are best and worst conductors of electricity. Every organ surrounded by membranes appears to possess condensing powers proportionate to the amount of blood going to the organ; the membranes seem to oppose the dissipation of electrical energy.

The Year-book of Treatment for 1885. A Critical Review for Practitioners of Medicine and Surgery. Cassell and Co. (Limited), London, Paris, New York, and Melbourne.—The second volume of Cassell and Co.'s Year-book of Treatment fully maintains the reputation gained by the first. The list of contributors is almost the same. We miss Dr. Mahomed, Mr. Knowsley Thornton, and Mr. Warrington Haward; but we welcome as new writers for this publication Dr. Sidney P. Phillips and Mr. Walsham. The articles vary in value. Where the writer has freely exercised his own critical faculty the result is more valuable; but the mere reference to a paper or an abstract of it is of little use. As a whole, the book is sure to be popular; it presents a large amount of information in a very compendious form, and as the title of every paper quoted is given in full it forms a very useful book of reference. We have found one or two errors that have escaped the editorial eye. Thus, on p. 127, we read of an incision to be made "in *right median line*, commencing four centimètres below xiphoid cartilage, extending downwards and outwards to three centimètres from cartilage of ninth rib." On p. 138 Mr. Treves is made to state that, in his opinion, "a tight ligature around a damaged nerve would increase rather than diminish its prospects of restoration," when of course the reverse is what he meant. On p. 149 we read of "perpeating" for "perforating." These, however, are errors which appear the more conspicuous from the general excellence of the work. No doubt they will be corrected in later additions.

The Student's Guide to Clinical Medicine and Case-taking. By FRANCIS WARNER, M.D., F.R.C.P. London: J. and A. Churchill. 1885.—We are pleased to see that a second edition of this work has been called for, since its object is the very meritorious one of assisting the clinical clerk to be accurate and ample in his note-taking, and also to arouse his mental faculties and powers of observation. Certain additions have been made in the section upon the nervous system, and a scheme is added for taking notes of children's disease.

Sunshine and Sea. By a COUNTRY DOCTOR. Illustrations by F.T. London: Kegan Paul, Trench, and Co. 1885.—This is an account of a yachting visit to the Channel Islands and the Coast of Brittany, and the Country Doctor, who made up one of the party, brings charm to his story by a style of writing which can only result from a cultured education. He has succeeded in showing that a yachting tour in pleasant company constitutes the best, most healthful, and most enjoyable form of holiday, and we should advise those who have the opportunity to follow the Country Doctor's example and get as much good out of their holiday as he did during his brief one around the neighbouring coast. Before starting, they should read his book, which teems with the bright surroundings of sea, air, and sun, and is attractive by reason of the excellent descriptions of special scenes, and the habits and costumes of the people he met with, and also of the amusing daily incidents attaching to life amongst a merry party on board a yacht. The book itself affords recreation, the more so as it avoids everything that would give it the stamp and monotony of a guide-book.

Whitaker's Almanack. 1886.—We have received the current issue of this really excellent work. It contains an amount of varied information which is not, to our knowledge, to be found in any similar publication, and the editing has this year been, so far as we can judge, done most thoroughly; indeed, we have not been able to detect any inaccuracy in the numerous facts which are briefly summarised in its pages. The most important alteration in the issue for 1886 is the list of members of the new House of Commons. Being the first election under the new Reform Bill it may be regarded as historical, and accordingly the names of all the candidates have been given, with the numbers polled. Under the name of each county is the number of members returned to the unreformed House, and the numbers under

each of the three Reform Bills. It is stated that the next issue, that for 1887, is to be entirely remodelled. Whitaker's is the best of our almanacks, and the great success which it has achieved is well deserved.

New Inventions.

NEW AXIS-TRACTION FORCEPS FOR HIGH DELIVERY.

THE forceps, of which I enclose electro, have for their object the simplification of the high delivery and a greater control over axial direction. They have the double curve, after the manner of Dr. Aveling's instruments, and their chief peculiarity attaches itself to the small metallic handle which ships over the wooden handle of the upper blade, and is capable of easy circular rotation to the left or right. When in operation this supplementary handle (B), having its fixed ball-and-socket joint half an inch below the lock on

the anterior surface of the handles, acts as a lever of the first kind as well as a tractor, and by its means a greater axial control of the instrument is effected than by any other mechanism with which I am acquainted, whilst the whole additional contrivance is out of the patient's body and in sight, and all increase of bulk or complicity of the internal portions is avoided. Moreover, the perineal pressure of such instruments as Tarnier's is advantageously relieved. The clever details of the mechanism were worked out by Messrs. Krohne and Sesemann, of Duke-street, whose instruments are ready for inspection.

EDMUND HOLLAND,
Physician to the Hospital for Women.

AN IMPROVED FORM OF STETHOSCOPE.

A VERY pretty stethoscope has been produced by Messrs. Maw, Son, and Thompson, on the principle of the one I described in a contemporary of May 10th, 1884, but differing from it in not being intended to answer a number of different purposes. It is simply a binaural stethoscope with two ear-pieces and two tubes similar to

Stearn's, and a metal chest-piece with a Y-shaped junction, so that the whole of the sound is directed into the tubes without having to pass through any cavity in the instrument. At the point of juncture there is a small tube or key which can be closed by the finger. When this is left open the sound is heard as with the ordinary stethoscope and when closed the deeper sounds become audible.

The advantages claimed for this instrument are: 1st. The sound, not having to pass through tubes of different calibre or any cavity in the instrument, is conveyed with greater accuracy, and unaltered in character. 2nd. There is no crossbar or elastic band in the middle, as in the ordinary binaural, so that the hum produced in some by the breath from the nose of the auscultator impinging on an elastic band is avoided. 3rd. By means of the key it acts either as a simple or a binaural stethoscope without moving the instrument. 4th. It is the most portable stethoscope I have seen, and can easily be carried in the waistcoat pocket. It is packed in a neat case with three different-sized pairs of ear-pieces, so as to ensure their fitting any-sized external auditory meatus.

AYDON SMITH.

ANTIPLUVIUM PERFECTUM: WATERPROOF HEALTH GARMENTS.

AN ideally perfect waterproof is, we fear, unattainable. An ingenious attempt has, however, been made in the case of the garments submitted to our notice to combine protection from wet with due ventilation. The "shower-proof" cloaks worn by ladies will resist the rain for a considerable period, if not submitted at the same time to pressure, while they permit the escape of moisture from the surface of the body. Acting on this hint, the makers line this shower-proof material with caoutchouc on that part of the cloth which forms the lower portion of the garment, whilst over the region of the lungs only the shower-proof cloth itself is employed. It is therefore reasonably claimed that excellent ventilation, and what is practically complete exclusion of rain, the garments being quite impervious below the line where any pressure is likely to take place, are secured. The specimens submitted to us have the advantage of being very light, and are, we think, likely to prove a comfortable and useful means of protection against wet and chill. They are manufactured by Messrs. Abbott, Anderson, and Abbott, 70, Watling-street, E.C.

CANCER STATISTICS.

To the Editor of THE LANCET.

SIR,—I wish respectfully to direct attention to a fallacy in Mr. Dunn's paper as given in your issue of the 23rd ult. Mr. Dunn says:—"Taking Gross's statistics as an example, we find that out of 712 women with cancer of the breast 88·22 per cent. were or had been married. Of these, 83·91 per cent. had borne children and 16·09 were sterile, while 11·77 were single. What a remarkable statement is this!" There is nothing very remarkable in this, excepting the unfortunately confusing way of calculating the percentages. But the inference that immediately follows is indeed remarkable! "It is almost certain that if every virgin in England at this moment maintained her *status quo ante* in this respect until the end of her natural life, the female mortality from cancer in the future would be infinitesimal in comparison with present records." Now I trust the virgins of England will not think it necessary to postpone any of their social arrangements on account of this desperate logic; and that "politicians, moralists, and surgeons," so far as concerns this question of marriage and cancer, shall be very comfortable. There is no foundation in the statistical facts—which I may assume to be true—for this remarkable inference. What Mr. Dunn has to show, before his statistics are worth anything, is that the ratio of the number of married women suffering from cancer to all married women is greater than the ratio between the number of single women suffering and all single women. I may put it briefly in this way. Let x = all married women, y = all sterile married women, and z = all single women. Mr. Dunn has to show that $\frac{x}{83{\cdot}91}$ is greater than $\frac{y}{16{\cdot}09}$ and greater than $\frac{z}{11{\cdot}77}$. And even when that is done, and such an approximation of truth attained as can be got from statistics, Mr. Dunn will have to reckon with the complex social and individual influences that determine statistics, and which are the ultimate elements of cause. I have not devoted much attention to this study, but I shall be very much surprised if the exact and correct use of and inference from statistics can show the slightest support of Mr. Dunn's conclusions in this respect.—Your obedient servant,

February 8th, 1886. H. CAMERON GILLIES.

THE LANCET.

LONDON: SATURDAY, FEBRUARY 13, 1886.

IF further proof were needed as to the injurious influence of small-pox hospitals on communities living in their vicinity, it is to be found in the careful report with which Mr. SHIRLEY MURPHY closes his connexion with the vestry of St. Pancras. There is no small-pox hospital actually within the limits of St. Pancras; but the Hampstead and Highgate institutions are sufficiently near to the boundary to enable Mr. MURPHY to form a judgment as to whether any injurious influence, such as has been shown to exist around other small-pox hospitals, had been exerted on the parish for which he formerly acted as medical officer of health. The Hampstead Hospital is fully a quarter of a mile beyond the north-western boundary of St. Pancras, the Highgate Hospital being just outside the north-eastern boundary. As regards the Hampstead Hospital, the circumstances were especially favourable to the investigation made, because the hospital, after having been closed for many years, had again been used for the reception of small-pox patients during 1884.

The results of Mr. MURPHY'S inquiry are shown by means of tables and also by means of a series of excellent diagrams, and in both the practice adopted by Mr. POWER in the case of Fulham, of indicating the amount of disease in quarter-mile rings drawn round the hospitals as centres, has been observed. Taking Hampstead first, it is shown that in the four years 1880, 1881, 1882, and 1883, when that hospital was closed, the houses within the special area of a mile circle round the building were attacked less than those in the rest of the parish, the calculation being based on an examination of the houses invaded per cent. of the total houses; but in 1884, when the hospital again came into use for the reception of small-pox cases, there was "a marked gradation of incidence, the houses in the ring nearest to the hospital suffering more than twice as much as those in the next ring, and more than five times as much as those in the outer ring." Indeed, the houses in the special ring of one mile were attacked at the rate of 2·9 per cent., whereas in the rest of the parish they only suffered to the extent of 0·9 per cent. As regards the Highgate Hospital, the conditions were, subject to certain local influences, very similar, and in 1884 the incidence of the disease on the area within a quarter of a mile of the hospital reached 7·70 houses invaded per cent. of total houses, as opposed to 1·3 per cent. in the remainder of the parish. The diagrams we refer to are extremely valuable. They show how in 1880, a non-epidemic year, the comparatively few houses attacked in St. Pancras were distributed all but uniformly throughout the parish. In 1881 there was an epidemic, Hampstead Hospital being closed, and Highgate being open. During this year small-pox is shown to be generally diffused throughout the parish, with some special aggregation in some of the more densely peopled districts; but whilst there is certainly no special incidence of the disease in the immediate vicinity of Hampstead Hospital, there is quite a mass of red dots, showing how severely the houses in the immediate neighbourhood of the Highgate Hospital were attacked. The years 1882 and 1883—non-epidemic years—resemble 1881 in so far as the distribution of the few cases of small-pox which occurred is concerned, except that in 1883 a slight outbreak occurred near Highgate Hospital. Then comes the crucial year, when both Hampstead and Highgate hospitals were in full working, and it needs but a single glance at the map for that year to enable the most uneducated observer to see how great is the influence for harm which those two institutions exerted upon the houses in their neighbourhood. A great mass of red marks around Hampstead go to show that, in the one-quarter to a half mile circle, 6·7 per cent. of houses were attacked; 3·1 from one-half to three-quarters of a mile; 1·3 from three-quarters to one mile; and only 0·9 in the remainder of the parish. The result would doubtless have been still more striking had Mr. MURPHY'S district included the area within a quarter of a mile radius of the hospital.

So far we have said nothing as to the precise means by which this grave injury has been brought about. Mr. MURPHY'S inquiry did not enable him to decide how far an aerial diffusion of infection could be held responsible for it, and under these circumstances we do not propose again to discuss this question in detail. But the matter is none the ess grave if we abandon all notion of an aerial distribution. Quite the contrary. As Mr. MURPHY points out, the Metropolitan Asylums Board have honestly striven to give effect to nearly all the recommendations of the Royal Commission on Fever and Small-pox Hospitals. The number of acute cases at each hospital is strictly limited; precautions are taken with regard to the staff and visitors such as were never before thought necessary; and the ambulance service, in its strictness as to details, is practically perfect. And yet the mischief goes on just as it always has done, and it probably will continue to do so until the true cause of this diffusion is frankly admitted. Mr. POWER'S observations go to show that the cause is an aerial one; but whilst all sorts of expedients, excellent in themselves, are being resorted to, nothing is being done to check the diffusion by air. An essential recommendation laid down by the Royal Commission was that small-pox hospitals should be so constructed as to permit the destruction of all air that the wards have contained, and Dr. BURDON SANDERSON brought under the notice of the Commission a design showing the principles by which this might be effected. But, as Mr. MURPHY states in his report, no attempt has been made to carry this out. Why? We do not know. If further inquiry is needed, there is no reason why it should not be made forthwith. But under any circumstances the time has come when it is clear that the remedial measures hitherto adopted have failed, and when some other method of dealing with this grave source of danger to communities is urgently called for.

PROFESSOR V. PETTENKOFER is justly regarded as one of the highest authorities upon sanitation and epidemiology. He may, in truth, be said to have been the pioneer in Germany of scientific hygiene, just as one may claim for PARKES a similar position in this country. The medical profession associates Professor V. PETTENKOFER mainly with his

studies upon cholera and typhoid fever, for he represents the anti-contagionist school, and his subsoil-water theories have long been before the world. Any contribution that he makes to the subject is sure to receive attention; so that the substance of a recent address given by him upon the relationship between Bacteriology and Epidemiology (to be found in the *Münchener Med. Wochensch.*, 1886, Nos. 3 and 4) is worth perusal. It is remarkable in many ways, but especially for the candour and justice with which the newer doctrines are treated. There is much truth in his opening remarks upon the glamour which has been developed by the fascinating pursuit of bacteriology, so that it is not surprising that the assertion has been made that this study has for the first time given epidemiology a scientific basis. It has undoubtedly, he admits, increased the means of diagnosis, but he contends that it has done little to advance the cause of prophylaxis or treatment beyond the position previously attained. What, he asks, has the discovery of the tubercular bacillus done to reduce the mortality from phthisis? or in what respect has the detection of the typhoid bacillus aided in advancing the sanitary measures and lines of treatment which have already effected so notable a reduction in the mortality from typhoid fever? Indeed, many real advances in the treatment of diseases now proved or suspected to be due to the invasion of micro-organisms have been made almost empirically, or, at any rate, without any reference to the existence of specific germs; and once more he reiterates his opinion that the concentration of view upon the single factor of bacterial origin, to the neglect of the other factors of telluric and seasonal conditions, is responsible for much erroneous doctrine. Even as regards disinfection, bacteriology has added little to the principles previously established by epidemiology, or by the practical acumen of a LISTER, whose system was based upon the general doctrine of fermentation and putrefaction through the intervention of living organisms, and not upon a direct demonstration of the effects of certain antiseptics upon special forms of bacteria. It is true that subsequent knowledge had demonstrated more exactly the germicidal properties of antiseptics, but the principles of antiseptic surgery were established without such direct aid from bacteriology; indeed, the pursuit of the latter was doubtless largely impelled by the successes achieved by the former. On the other hand, the discovery of the prophylactic power of inoculation by the attenuated virus, as demonstrated by PASTEUR in the case of anthrax, must be admitted as the outcome of bacteriological research, throwing light upon the *modus operandi* of vaccination; yet the most recent work of PASTEUR upon hydrophobia has been accomplished without any demonstration of the actual morbific agent in rabies. That a knowledge of the specific organism of any infectious disease does not often explain the cause of an epidemic is illustrated in the case of anthrax, which can so readily be transmitted by inoculation; whereas the spontaneous disease may at one time attack only one animal in a herd, at another strike down several almost simultaneously and give rise to a widespread epizootic. The fact of a transmission by inoculation, or, in other words, the experimental test of infectivity, cannot, then, explain satisfactorily the origin and spread of epidemics. This point has been lately further illustrated by the successful inoculations by MARCHIAFAVA, CELLI, and others in the case of malarial fever. These experiments showed conclusively that blood taken from a patient suffering from intermittent fever could, when inoculated, transmit the disease; but no one would pretend that this proved that the malarial virus is habitually transmitted by individual infection. May we not, then, legitimately conclude from this that, although tubercle can be undoubtedly transmitted by direct inoculation, it is not thereby *proved* to be a contagious disease?

Professor v. PETTENKOFER continues his argument by referring to the long-established division of infective diseases into contagious and miasmatic, some diseases occupying an intermediate (because undetermined) position between these two classes. Bacteriology is breaking down these artificial distinctions—which, by the way, Professor v. PETTENKOFER would prefer to style "entogenous" and "ectogenous," according as the virus is transmitted direct from the sick to the healthy, or results from a micro-organism developing apart from but in the vicinity of the infected patient. It is important, therefore, to determine whether an epidemic spreads entogenously or ectogenously. Many think that if a specific fungus is found in the patient, and especially if the disease can by its means be transmitted experimentally to the lower animals, that is a proof of its entogenous character, and that the disease can be spread by the patient or his excretions. This is the point which Professor v. PETTENKOFER criticises, taking as examples the important diseases typhoid fever and cholera. No one would rank cholera among the purely contagious diseases, as syphilis and small-pox; but the general doctrine is that it is contagio-miasmatic. We all know that, as regards cholera, experts are divided into two camps—the contagionists and the anti-contagionists; yet it is noteworthy that at the conference held last year in Rome, where the former were in a majority, there was a unanimous declaration to the effect that the safest prophylaxis against cholera epidemics lay in local sanitary measures, with the proviso, however, in favour of the enforcement of measures directed especially against contagion, such as quarantine, isolation, disinfection, and the like. Professor v. PETTENKOFER is, however, fully convinced that epidemics of cholera are solely ectogenous in their origin, and that the disease is no more contagious than is malarial fever. Not that cholera arises like malaria, for, although endemic in some parts of India, it can be conveyed elswhere; not, indeed, in the way urged by the contagionist school, otherwise Europe, and especially Egypt, would never be free from its invasion, so close is the intercourse between them and the home of cholera. Even in India itself cholera is limited to certain localities, and all epidemiological research goes to prove that there is a great difference in the susceptibility of localities to become infected, and even a varying susceptibility in one place. Again, he shows that the imported cholera germ will remain latent for a time as shown in the recent epidemics, where Egypt was attacked in 1883, infecting Toulon, Marseilles, and Naples, where the disease was not manifested till 1884; Spain was infected from the South of France in 1884, but the great epidemic did not arise till 1885, and even now the coming year may show that other parts of Europe received the infection last year from Spain. No sanitary cordons or quarantine, no isolation of the sick or disinfection, could

avail to prevent epidemics of a disease which spreads so mysteriously; and experience shows that all such measures are invariably adopted too late. Moreover, PETTENKOFER claims that the few cases advanced by the contagionist school in support of their doctrine are capable of an ectogenous explanation, although such authorities as GRIESINGER and VIRCHOW have been compelled by such facts to admit that occasionally cholera is communicable, an admission which would lay the burden of proof upon the bacteriologist to show how and under what conditions the germs can be at one time transmitted directly from individual to individual. That it cannot, as a rule, infect, is shown by the immunity enjoyed by the attendants on the sick. The fact that cholera appears in a locality after the introduction of a case of the disease, whereas healthy immigrants coming from an infected place do not apparently convey the germs, lends apparent support to the contagionist doctrine; but Professor PETTENKOFER sees no difficulty in believing that a cholera patient must of necessity have been in more intimate contact with the virus, and that he contaminates the locality and not the inhabitants directly. Why is it, if the disease be contagious, that once it is introduced it does not always spread? It is, he thinks, because the conditions of the locality and the seasonal conditions are such as do not permit of the development of the poison. An outbreak of cholera on board ship can almost invariably be traced to importation of the poison from an infected port, but there is no proof that the disease spreads by direct contagion from the individual who introduced the poison. So also with limited outbreaks, house epidemics, &c., the explanation given by the Professor is, he holds, more reasonable than that of the contagionist, who would have to show why so many exceptions occurred under conditions apparently so favourable for the spread of a contagious malady.

Nor does Professor v. PETTENKOFER limit the scope of his criticism to those who assert that such a disease as cholera is directly transmissible from one human being to another. He is equally opposed to those who hold that drinking-water may be contaminated by the choleraic discharge, and the disease spread in this way. His position is that the water would not be a medium for the conveyance of the cholera virus did not the nature of the locality also happen to be favourable for its development. In this respect, he remarks, there is a close analogy between cholera and typhoid fever, which is so universally believed to be propagated through the medium of water. We fail, indeed, to follow Professor v. PETTENKOFER here in the face of accumulated facts pointing to the transference of the typhoid poison from individual to individual by means of this and other articles of food. Nor does he touch upon the subject of milk epidemics, which surely bring a great body of evidence in support of the typhoid virus being so transmissible. He contents himself with disproving that the Wiesbaden epidemic of 1885 had anything to do with contamination of water; and it seemed to be proved to depend on defective drainage. He holds it to be the duty of bacteriologists to extend their field of inquiry; he admits their facts so far as they go, but thinks their conclusions are erroneous from the limited range they permit themselves. Practical measures of hygiene can be framed only when all the circumstances of epidemic disease are taken into account. The discovery of the specific pathogenic organism can do little more than subserve diagnosis and explain the phenomena of the disease; the full etiological explanation, with the resulting hints towards prophylaxis and treatment, requires a research into the whole environment of the micro-organism and the conditions that influence its growth and development. He welcomes the new discoveries made by the bacteriologists; but he cannot admit that they have in any respect undermined the well-established facts of epidemiology; to harmonise these two great sources of inquiry must be the task of the future, if we are to reap the full benefit of all that is being done to advance our knowledge of the nature of disease.

THE regrettable and humiliating occurrences of the last few days in London, which, through the culpable want of foresight and energy of the Home Office or police authorities, has been practically handed over to the mercies of the turbulent classes, may well form a subject of profitable study to those who are professionally concerned with the working of that important *function* which we call mind. The observation of mind working in a mob is an exercise full of interest and instruction. Mob-mind may be defined as the outcome of all the actions and interactions of individual minds upon each other when brought into intellectual contact by the simple fact of concourse. This is something quite different from public opinion. When a number of persons thinking on the same lines in reference to any question are thrown together, they bring with them special forces of construction and are prepared to form bonds of cohesion. Their several purposes are ready to merge in a common purpose. No doubt there is something of this pre-existing affinity at work in the mental constitution of every mob. If the component parts of a crowd were not in some measure qualified to act together they could not voluntarily assemble, or, being thrown together, would not coalesce. Nevertheless, there is a different force, or, more correctly speaking, there are different forces, at work in the constitution of a mob properly so called. The term "mob" implies heterogeneity on the part of its elements, and excludes the idea of organisation or the existence of a common purpose. It is not therefore possible that a mob in its true sense should possess a mind composed, as it were, of the fused elements of a multitude of minds, in respect to the higher forms of cerebration. The mental activities of a mob are limited to passion, impulse, and imitation; in fact, to the lower range of mind-energies. Given a multitude of impressionable persons, it is by no means necessary that they should have formed opinions on any special subject to make them ready to act together either under the influence of passion, impulse, or imitation. It is, on the contrary, possible, and even probable that they will act in direct antagonism to their principles—the principles that govern their several lives — while they are under the influence of passion, impulse, or imitation. It is very curious to observe how this works. There is a subtle but mighty influence exerted by numbers, which stirs the passions, and impels a man to imitate those around him. If one man become excited, others will take the infection, and the spirit of turmoil rises and spreads through the crowd without any

necessary sympathy between the individuals acting together in respect to a common object. If one man looks in a particular direction, others look, they know not why. If one man runs, the many run without reason; and if one member of a crowd resort to violence, others follow suit though no special purpose animates them. There is an evolution of something which for the time takes the place of a common thought or motive, but which is actually nothing more than a stirring of the lower mental energies, and not in any true sense entitled to the dignity of being described as intellectual, and yet, looking to its capabilities when once evolved, is fairly describable by no less a term than mob-mind. A mob stirred by this influence quickly grows to be a party with all the making of an organised body. In the brief space of a time that can be measured only by its incidents, a crowd of heterogeneous particles of humanity may be so welded together by their deeds that from the instant when this union takes place it shall constitute a coherent mass. This is how revolutionary mobs are made. A crowd assembles; one-half of the persons present probably are conscious of nothing more potent in the nature of motive than curiosity. They do not even hear the speaker addressing the gathering; they are simply impressed by sounds, sights, and the influence of numbers. Presently they are stirred by some impulse arising out of, or appertaining to, passion; they imitate, unconsciously it may well be, the acts of those around them, and, without thinking why, they take part in proceedings they do not even understand. It is even possible that they may take weapons thrust into their hands or missiles placed at their disposal, and use them in the perpetration of deeds of lawless violence, without being aware of the purpose which they are ostensibly striving to carry into effect. Nearly all riots and revolutions begin in this way. In a few hours, however, it becomes necessary to justify to the consciousness the act in which the creature of impulse has been engaged, and reason — the perverted faculty of a mob-mind—comes into play. It follows from this view of the growth of mob-mind, that those are the real offenders against the public peace who permit mobs to assemble and supply them with opportunities of doing deeds which give birth to malignant purposes. When the police are allowed to stand idly by and permit the assembling of large crowds of impressionable persons, when they are instructed not to interfere with "horseplay" which is the prelude to crime, the authorities responsible for this blind policy are assisting at the birth of an organic revolution. We do not hesitate to say that nothing which can now be accomplished will atone for the apathy of the Home Office and of the authorities at Scotland-yard last Monday. A mob has been allowed to constitute itself, and though for the moment its component members may be kept apart, the active germ of a revolution has been ushered into existence. A mob-mind has been constituted, and has not simply formed a purpose, but been permitted to indulge in triumph over its achievements. For more than an hour before the smallest act of violence commenced on Monday, there were unmistakable evidences of an impending riot within a stone's throw of Scotland-yard, the central office of the police. Either no detective had the wit to convey the intelligence to head-quarters or the authorities there were too supine to act. Fifty policemen drawn across the entrance to Pall Mall would have put an end once for all to the riot at its outset. No such precaution was taken. For two hours the West-end was left to the mercy of the mob, and, stranger still, the riot achieved, the rioters were actually allowed to hold a meeting of triumph at the foot of the Achilles statue. No such crime of omission as was committed by the Home Office and the chiefs of the police on Monday has been committed by any public authority since the days of the Gordon riots. We trust that when Parliament meets once more, the urgent questions arising out of these events will be raised, and that they will not be allowed to remain unanswered. A great opportunity for the study of mob-mind has been most needlessly created, and there is only too much reason to fear that it will not be long before the malignant mental organism, to which administrative folly has given birth, will again make its presence felt in our midst, gathering additional weight and influence each moment it is permitted to exist. The prosecutions in progress, though needful in their way, are like measures for locking the stable-door after the steed is stolen. The deed has been done, and the full issue is not yet reached.

DR. PILCHER, in a paper read before the New York Surgical Society, has discussed in an interesting manner what is the right line of practice to pursue when the main vein of a limb is suddenly and permanently occluded, especially whether simultaneous ligature of the companion artery obviates the risk of gangrene. The proposition is twofold. What ill effects are likely to follow the sudden and complete occlusion of a main vein? And then, if ill effects follow, how are they best dealt with? There are few more striking pathological facts than the remarkable way in which the *gradual* occlusion of veins, as by the pressure of morbid growths, is compensated for. Even one or other vena cava may be slowly obliterated with strikingly little interference with the circulation in the parts affected. In such cases anastomosing veins have time to enlarge and to furnish sufficient channels for the returning blood. Far different is it where the obstruction is *sudden*, as from a wound, where the anastomosing veins have not been previously enlarged; and it is therefore not safe to argue from the former case to the latter. BRAUNE and others have attempted to elucidate the problem by experiments on the cadaver. The main vein of a limb has been tied, and the force necessary to return fluid from a distal venule to the heart has been measured, and from this it has been questioned whether the normal forces carrying on the venous circulation are or are not sufficient to overcome the obstacle. Such experiments are interesting, and to a certain extent useful, but the results so obtained must be applied with extreme caution to the living body. The vessels have other than physical properties, and the vital contractions and relaxations of arteries and veins respectively may affect the case very materially. The one special danger to be feared from the sudden obliteration of the main vein of a limb is gangrene from venous stasis, owing to the inability of the vein radicles to empty themselves. Experience has shown that this is by no means sure to result even from closure of the common femoral vein. LANGENBECK has recommended that in any such case the main artery should be ligatured at once, as in that

way a smaller quantity of blood is carried to the part beyond, and less stress is thrown upon the overcharged veins. Experience, however, does not support this view. The ligature of both vessels has been successful in certain cases, but on the whole the mortality, and the frequency with which gangrene has occurred, have been greatly increased by this practice. In no situation has this been more clearly demonstrated than in the neck, where the ill effects of ligature of the internal jugular vein are considerably exaggerated by simultaneous ligature of the artery. Nor is this result to be wondered at. Ligature of the main artery of a part is attended with two results which are unfavourable to the venous circulation. In the first place, the local anæmia causes a general dilatation of the arterioles, with compression of their attendant venules; and, in the second place, the force of the heart is dissipated in propelling the blood through the many narrow anastomosing arteries. In the life-history of aneurysm two facts are often noticed which throw light upon this matter. The first is the marked effect of the pressure of an aneurysmal tumour upon a neighbouring vein, the direct influence of the venous obstruction being supplemented by the impediment to the arterial circulation caused by the presence of the aneurysm and the diseased state of the arteries beyond it. And it is just in such cases that the danger of gangrene after the Hunterian operation is greatest. When the force with which the blood is propelled into the limb is cut off by ligature of the main artery, the return of blood from the parts beyond becomes impossible from the diminished *vis a tergo*. It is therefore a grave question whether and how far an obstructed venous circulation is aided by such a diminution of the vigour of the circulation as is necessarily caused by the ligature of the main artery of a part. At any rate our present experience is opposed to the line of practice suggested by LANGENBECK.

MR. HUTCHINSON raised a most important question when he proposed to the Council of the College of Surgeons to extend the basis on which the Fellowship is bestowed. We do not profess to know exactly the lines on which he will proceed, but it seems to be no secret that the proposal is that fifty Members of the College are to be raised to the rank of Fellow, either without any, or after a very modified, examination. We confess to a feeling of great disappointment at this announcement. In the first place, the proposal does not come from the Council *proprio motu;* then, it is not a desire to mark special merit or conspicuous success; it is not even to reward those who have done the College good service. On the contrary, it is a sort of olive branch, and too obviously an attempt to pacify a growing determination among the Members of the College to exercise rights and privileges which pertain to membership among all other corporate bodies, without either cavil or question, by offering to a few of their number the bribe of an empty Fellowship. The carrying out of such a proposal will slowly increase the ranks of the Fellows, but it will lower the status of the Fellowship; on the other hand, the Members will lose, not numbers only, but the weight and authority which the seniors among them carry, and in this way the status of the Membership will also be lowered. The result will prove disastrous, and will be a retrogressive step in every sense of the word Moreover, supposing that fifty men could be found worthy of the honour—from a purely negative standpoint we have no sort of doubt that for the first two or three, or even more years, very suitable men *could* be found,—the injustice of excluding about *eleven-twelfths* of the body corporate from all participation in College management will be as glaring as ever. It is one which can never be atoned for by anything short of the full abrogation of the principle, and it were to be wished that the Council could be brought to see this. It is futile on their part to longer pretend to be blind to the extent and purpose of the present outcry among the Members of the College, and individual members of the Council who bring forward proposals to deal partially with the subject only the more prominently mark their own prejudices in matters on which a more liberal and enlightened policy might fairly be expected from them.

We have at various times pleaded for the official recognition by the Council that the Members of the College, as part of a corporate scientific body, are fit to exercise corporate rights—that is, to vote and to take part in its management. Their exclusion is anomalous as well as unjust; it is a marked slur cast upon the Members of the College by those who ought to be the first to claim respect for them. To send these men out into the world as practitioners, and yet to say we will have nothing more to do with you, is derogatory to the dignity both of the College itself and its Members. We have never ceased to urge the desirability of raising the standard of the Membership to the highest reasonable level, the need for wider culture, improvement in the curriculum, and a more thorough and prolonged training; and we gladly acknowledge the progress which has been made in the last few years. It is largely due to these influences that we now see the present reform movement surging through the profession. A feeling that injustice was being done to them has long existed in the minds of the Members; but the want of an organisation as a mouthpiece, not less than the occupation they follow, has hitherto prevented them from expressing their feelings. Increasing numbers of more and more highly educated men, and the steady growth of the principle of direct and responsible representation, are, however, at last making themselves felt. Under such circumstances we doubly regret the present proposal to widen the basis on which the Fellowship is bestowed. The Association of Fellows, which has so unceasingly expounded the political aspects of this present crisis, has placed the Fellows and Members alike under a further obligation by pledging itself to resist any attempt to degrade the academical status of the Fellowship, and we have reason to think that the best of the Members will be hardly less unanimous in declining to accept such borrowed plumes as it is proposed to offer them.

On many grounds, therefore, it is most undesirable to widen the basis of the Fellowship. On the other hand, are there not good reasons why, if any alterations be made, it should be further limited? When justice has been done to the Members, and the examinations for the Membership have become more and more what they should be, the diploma of Membership will be highly prized, and even more sought after than at present. The College of Surgeons should do everything they can to raise their Membership,

and its possession should carry with it any privileges the College itself has to offer. The Fellowship, on the other hand, should approximate more and more to the nature of an academical honour—a wranglership, in fact; it ought not to carry exclusive privileges at the College, where all Members should be on an equal footing till raised above the ordinary level by the voice of their fellow-Members. In the hospitals and schools of medicine, however, every possible privilege may be given to it, in order to induce as many as possible to more effectually "promote and encourage the study and practice of the art and science of surgery," and in order to bestow compensating advantages on those who give up time to this purpose. We hope the Council will decline to accept Mr. HUTCHINSON'S proposal; and we shall regard such an issue as the harbinger of a policy more in accord with the requirements of the times. It would be humiliating to the Council to apply for and be refused the alterations in the Charters on which they decided upwards of a year ago; and yet, should they be rash enough to apply to the present Government in face of the Members' petition now in course of signature, we cannot for a moment doubt the result. The Council ought seriously to consider their position; they have only two courses open to them—either to resign as no longer having the confidence of their constituents, or to initiate with good grace such changes as will re-secure it.

Annotations.

"Ne quid nimis."

FROM BAGSHOT PARK TO WINDSOR CASTLE.

THE Duchess of Connaught is shortly, it is stated, to transfer her abode from Bagshot Park to Windsor Castle to undergo her confinement. It will be remembered that on a former occasion when Her Royal Highness was confined at Bagshot Park symptoms of a septic nature presented themselves, to the alarm of the medical attendants and anxiety of the Royal Family. At considerable risk the Duchess was removed a few days after her confinement from Bagshot Park to Windsor Castle. The lesser of two evils had to be resorted to. If the Duchess had been permitted to remain in the newly-erected residence in Bagshot Park there would have been a continued exposure to the septic poison, which had already excited very grave symptoms. On the other hand, there was some risk in the removal from Bagshot to Windsor so soon after a confinement. But this was the lesser evil, and was wisely decided upon. It was subsequently found that the drains of the house in Bagshot Park were defective. These, however, have been rectified, so that this source of danger is removed; yet there are still good reasons why the Duchess should be advised not to undergo another confinement in Bagshot Park, and that preference should be given to Windsor. The deaths from childbirth and childbed fever in the registration district comprising Bagshot Park are double the death-rate in the Windsor district, notwithstanding that the former is a thinly populated rural district, while the latter is a more thickly populated urban district. If the registration district comprising Bagshot Park be compared as regards death from childbirth and puerperal fever with that of Stepney, Mile-end, or Poplar, or, indeed, most of the poorer districts of London, it will be found to be in excess of these, and therefore fraught with more danger to a parturient woman. There must, therefore, be something beyond defective house-drains to give rise to this high death-rate from childbirth and puerperal fever in a country district in the midst of moor and heather, and in the very centre of the wide range of sandy soil known as the Bagshot Sands. The district of the Bagshot Sands, as we have on former occasions pointed out, consists on the higher ground of light porous sand, which drains into the valleys of retentive clay, marsh, and bog. These low-lying damp districts are insanitary, and specially favourable to septic diseases affecting parturient women—diphtheria, malaria, and what is popularly known among the poorer inhabitants as aguish rheumatism. Residents on the low-lying marsh-lands of the Bagshot Sands are liable to one and all of these. To drain these marshes would give work to the unemployed and effect a great sanitary improvement. Much of these sandy wastes and marshes belong to the Government, and might fairly be dealt with at the cost of the nation.

WORK FOR THE UNEMPLOYED.

VERY extensive tracts of country belong to the Government, and produce very large returns under the name of "Woods, Forests, and Land Revenues," which are managed by a department of the Government known as the "Woods and Forests" at a cost of somewhere about £22,000 a year. There are several commissioners, who receive £1200 a year; a solicitor, £1500 a year; clerks and other officers, £900 a year. Such salaries should represent service on very large monetary returns, and so it will be found to be. At the end of one financial year there was a cash and stock balance amounting to more than £600,000 at the disposal of this department for permanent improvements. The extensive tract of Government property stretching from Windsor Park to Aldershot admits of very great permanent improvement. The larger portion of it is unreclaimed. To trench some portions and plant with Scotch and larch would bring some return for expenditure. To drain the low-lying marsh districts around Bagshot Park, Wellington College, the Royal Military Colleges, and the Camp at Aldershot would effect a great sanitary improvement, even if confined to those portions of these districts which actually belong to the Government. Here, then, is abundance of work for the unemployed, and £600,000 available in one department of the Government to pay for it, with the prospect of a real permanent improvement to Government property and increased sanitation where it is much needed. A pickaxe and a spade are the only tools needed for the work. Sir Robert Rawlinson could devise a scheme for the Government in less than twenty-four hours, for he has already had a large experience in designing work of this kind. Ten thousand workmen might be well employed at task work—that is, remunerated in proportion to the work they do. They could be divided into sets, according to the lodging accommodation, with one ganger to every hundred men. The improvements in the Royal forests might be carried out on the lines commenced by the late Prince Consort nearly fifty years ago, the good effect of which is palpable enough in Windsor Park and the Royal forest around, and consisted mainly of trenching, draining, and planting, each of which is in the direction of an improved sanitation much needed.

AIR EMBOLISM.

AN experimental and clinical study of air embolism carried out by Dr. N. Senn of Milwaukee, Wisconsin, has led him to the following important results. The presence of adventitious air in the vascular system during life gives rise to air embolism. Each air embolism constitutes a mechanical source of partial or complete obstruction to the flow of blood in the vessel in which it is located. Aspiration during the inspiratory movements of the chest is the

direct or exciting cause of ingress of air into a wounded vein or sinus. Elevation of the head is the sole predisposing cause of the entrance of air in wounds of the superior longitudinal sinus. In veins the predisposing causes consist in elevation of the part wounded, and in pathological or anatomical conditions which prevent the collapse of the wounded vein. Insufflation of a fatal quantity of air into a vein produces death by mechanical over-distension of the right ventricle of the heart with paralysis in diastole, and by asphyxia from obstruction to the pulmonary circulation consequent upon embolism of the pulmonary artery. Insufflation of the same quantity of air into arteries is less dangerous than when introduced into veins. When death is produced in this manner it results from acute cerebral ischæmia, secondary venous air embolism, or intense collateral engorgement of the vessels of the brain and spinal cord. Air injected into arteries is readily forced through the systemic capillaries into the venous circulation and the right side of the heart by powerful contractions of the left ventricle. Air embolism of the pulmonary artery is relieved in a comparatively short period provided the contractions of the right ventricle continue unimpaired for a sufficient length of time. The prophylactic treatment should consist in proximal double compression or ligation of the vein that is endangered by an operation. The indirect treatment should have for its objects the prevention of admission of air, the administration of cardiac stimulants, and venesection. The direct or operative treatment should be by puncture and aspiration of the right ventricle; catheterisation, and aspiration of the right auricle. These last recommendations no doubt have the aspect of severe measures, but in some cases death is imminent, and desperate means become justifiable. Dr. Senn asserts that the results obtained by experiments on animals warrant the adoption of the operative treatment of air embolism in clinical practice. The chances of increasing the mischief by catheterisation of the right auricle must not, however, be overlooked.

PUBLIC HEALTH IMPROVEMENT IN ENGLAND.

THE death-rate in England and Wales in 1885 again fell to 19·0 per 1000 of the estimated population, and, excepting only the year 1881, when it was 18·9, was lower than in any previous year since civil registration came into operation in 1837. The Registrar-General's Quarterly Return, relating to the last three months of 1885, calls attention to the fact that the death-rate in each of the five years 1881-85 was considerably lower than the rate recorded in any year prior to 1881. The mean rate in the first half of the current decennium (1881-90) did not exceed 19·3 per 1000, showing a further decline from 20·8, the mean rate in the preceding five years 1876-80; whereas, in the preceding forty years of civil registration the mean annual death-rate was 22·3, and the lowest rate in any quinquennium was 21·4 in 1841-45. This marked reduction in the English death-rate has now been maintained for ten years, and has been much greater in the second than in the first half of that period. It cannot, in the interest of further health progress, be too constantly borne in mind that the commencement of this period of reduced death-rate was coincident with the coming into full operation of the Public Health Acts of 1872 and 1875. The effect of this reduced death-rate upon the numbers and longevity of the English people is phenomenal. The Registrar-General points out that the reduction in the death-rate in the last five years implies that "more than 281,000 persons in England and Wales survived that period, whose deaths would have been recorded had the mean rate of mortality been equal to that prevailing in the ten years 1871-80," in the latter half of which period the improvement in the public health had already set in. With regard to the increased longevity of the population, Mr. Noel Humphreys, in a paper read before the Statistical Society in 1883, showed that the effect of a reduction in the mean death-rate from 22·5 in 1838-54 to 20·8 in 1876-80 would be to add two years to the mean duration of life of every male, and three years and a half to that of every female born. The further reduction of the death-rate in the last five years to 19·3 implies a still greater additional lengthening of the mean duration of life in England.

THE METROPOLITAN BOARD OF WORKS ON THE VENTILATION OF SEWERS.

THE competency of the Metropolitan Board of Works to deal with the question of the ventilation of sewers, and the prospect that success will attend the efforts of that body, may be inferred from many singularly instructive passages in the Report of its Special Purposes and Sanitary Committee. For example take the following:—"When the temperature of the air of the sewer is lower than that of the external atmosphere, and no other influence is at work, the colder atmosphere of the sewer, being heavier than the external air, remains in the sewer; but when the outer air becomes colder, and consequently heavier, than the air in the sewer, it presses down through some of the openings to the sewer and drives out the warmer and lighter air through the other openings. This is noticeably the case on cool evenings in the hot dry season, at which time the nuisance from sewer ventilation is probably at the worst. It is therefore necessary to provide in sewer, as in all other ventilation, inlets for the cold air as well as outlets for the warm air." The fallacy of this extraordinary statement must be apparent if only we reflect that sewer gas is drawn into houses even when the temperature of the house is only a little above that of the external atmosphere, and of course much higher than that of the sewer. As a matter of fact, the air in the sewer does not fail to rise whenever and wherever the atmosphere above it is warmer. The assumption of the authors of this report as to the behaviour of sewer gas is based entirely on theory, and has no better foundation than the school aphorism that colder and more condensed gases underlie lighter ones, an aphorism which is perfectly well known by practical men to be untrue in actual working, the interchange and diffusion of gases being determined by other causes besides those of mere temperature. The Committee go on to say: "During the autumn and winter months the average temperature of the air of the sewers is warmer than the external temperature by about seven degrees; in spring the temperature is about equal, and in summer the external day temperature averages over three degrees warmer than that of sewers." So that if the law on which the reporters rely were applicable, sewer gases ought to rise out of the warm sewers into the cold external atmosphere, particularly during the autumn and winter, while in the spring there should be little change of place, and in summer there should be no ascent of sewer gas at all! "At night," says the Committee, "the temperature of the sewers at all times of the year is usually higher than the temperature of the external air," and the general conclusion drawn is "that throughout the greater part of the year the natural law, by which the heavier colder air forces out by its greater weight the warm air of the sewer, is in operation, and if proper facilities are given, that law will ventilate the sewer." The Sanitary Committee, therefore, clearly thinks that it is under conditions in which the temperature of the external air is lower than that of the sewers sewer gas escapes. It is therefore preposterous for anyone to speak of smells from sewer gas in summer. It is impossible that there can be any smell under such conditions, when the temperature of the external air is three degrees higher than that of the

sewers. No wonder the sanitary inspectors are so curt when in our ignorance of "natural law" we complain of effluvia from the sewers in summer. The Committee is good enough to admit that temperature is not everything in sewer ventilation. Something must be conceded to the effect of throwing "hot water and other liquids" into the sewers. Materfamilias must look to it that her servants do not poison the whole neighbourhood by allowing a little hot water to escape into the house drains and travel thence into the sewer. We should very much like to know how much hot water is cast into the sewers of the metropolis in twenty-four hours, and to what extent it suffices to raise the temperature of their contents, even locally. "The force and direction of the wind" have doubtless some effect on ventilation, and we are glad to find the Sanitary Committee recognise their agency; but they seem to think that in some mysterious way the sewer-gas is induced by the wind to flow to higher levels, like that of Hampstead. The need for this hypothesis of the action of the wind or a back current arises from the "natural law" to which we have already alluded. Firmly convinced that sewer-gas must needs be too heavy to rise unless artificially heated in some way, the Sanitary Committee is unable to understand what everyone else understands—namely, how and why it happens that the gases in low-level sewers and drains rise to those of higher level, and by way of explanation it imports a theory of wind-action. It would be wearisome to follow the schoolboy speculations of this Report further. No real reform can be expected whilst such ignorance in high places is allowed, not only to exist, but to prevail.

DOUBLE BRONCHOCELE SUCCESSFULLY EXTIRPATED.

DR. F. DIONISIO reports (*Gazzetta delle Cliniche*, 1885, No. 10) the case of Signora P. P——, aged thirty, who at sixteen experienced some difficulty of breathing, and shortly afterwards noticed slight enlargement in the median portion of the thyroid body. Stationary at first, the tumour began to grow and extended to the right side. At twenty years of age, when the lady was married, another swelling appeared on the left side of the neck and developed rapidly. Iodine treatment was tried internally and by injection, but the patient suffered severely from iodism without any compensating advantage. In the spring of 1885, the tumours having grown to such an extent that the slightest bend of the neck was impossible and the difficulty in breathing and swallowing had greatly increased, the patient became anxious for a surgical operation at all risks. On examining the neck on April 9th, it was found occupied by two tumours. The largest projected from the middle of the thyroid region to the right, and upwards as far as the mastoid process, raising the sterno-mastoid muscle and extending downwards under the sternum. The fleshy consistence of the tumour and its very limited movements in swallowing or under finger-pressure, which was very ill borne, gave the idea of deep impaction between the sternum and trachea. The second tumour was smaller, softer, and more movable; it was situated between the left side of the trachea and the corresponding sterno-mastoid muscle, and was separated from the right swelling by a skin depression (*solcatura tegumentaria*). Carotid pulsation was felt on the left, not on the right. Large subcutaneous veins were visible over both swellings; over the right they formed a varicose mass which occupied almost the whole clavicular region. The maximum circumference of the neck was forty-four centimetres (seventeen inches and a half). The right tumour was removed on April 19th, the left on July 2nd. Both operations were performed under chloroform, without spray, and by enucleation through two vertical incisions, which were united throughout with interrupted silk sutures, allowing space for a large drainage-tube at each lower angle. A Listerian dressing was applied the first day; subsequently a corrosive sublimate solution (1 to 1000) was injected through the tubes, and the wounds covered with iodoform gauze and antiseptic cotton. The hæmorrhage was inconsiderable. The first operation lasted a little less, the second rather more, than an hour. Convalescence was rapid, the temperature never rose above 38°, and both wounds healed throughout by the first intention. Two months later two linear parallel cicatrices were visible on the front of the neck, which now measured in circumference thirty-four centimetres (thirteen inches and a half). All trace of vascular dilatation had disappeared; respiration, deglutition, and general health were perfectly restored. The tumours weighed 350 centigrammes, and were microscopically examined by Professor Bizzozero. The left tumour was formed of a stroma of connective tissue, more abundant than the stroma of the normal thyroid, of hyaline aspect, and containing numerous anastomosing tubules covered with a single layer of epithelial cells; some of the tubules were dilated, and contained a colloid substance. The right swelling consisted of several zones of rather loose connective tissue, containing a large number of alveoli of various sizes, round or elongated, lined with simple tesselated epithelium and filled with granular masses or colloid substance, recalling the structure of common adenoma of the thyroid. In other parts the alveoli were smaller and more elongated, with the lumen proportionately reduced and obliterated in some points, so that the soft connective tissue, here and there infiltrated with amorphous matter of colloid aspect, appeared traversed by solid cords which frequently anastomosed. This was regarded as the form of adenoma most closely approaching the structure of cancer, and in reality not separated by a defined limit from the class of cancerous tumours.

RIVER POLLUTION IN SPAIN.

THE more closely we investigate the recent cholera epidemic in Spain, the clearer becomes the connexion between the water-courses and the districts affected. Under such circumstances the necessity of a Rivers Pollution Act is very obvious. If arguments were wanting in favour of such legislation, we might point to the town of Granada. Of all the large towns in Spain, none suffered so severely; and yet it is possible that the epidemic might have been avoided if the river that passes through this ancient city had been protected by a law rigorously applied. Some ten miles further up the river, just where the stream called the Aquas Blancas joins the Genil, there are some large paper-mills. A part of the water is used for the paper manufacture, and in the dry summer months all the water passes through the mills. The roughest chemical tests suffice to show the impurities resulting. The water is somewhat clearer before reaching Granada, but it is still utterly unsuited for drinking purposes. In spite of this, there are two intakes of drinking-water below the factory—namely, the canals, or *acequias*, Del Candil and Real. It should further be noted that the first cases of cholera at Granada occurred in the districts supplied by these canals, for there are three other sources of water used in the town. The general insanitary condition of Granada is such as to readily account for the rapid spread of cholera when once introduced; but perhaps we have in the connexion between the paper-mills and the potable water the origin of its first appearance. The rags employed for the manufacture of the paper were imported from the province of Valencia, where the cholera had been raging for some time. The unpacking and sorting of such unwholesome and filthy wares on the banks of an uncovered stream may well have contaminated the water. Indeed, this obvious danger caused considerable agitation.

at the time. The inhabitants of Granada clamoured to have the mills closed. This undoubtedly would have been done had they not belonged to the German consul; and the incident relating to the Caroline Islands had already sufficiently embittered the relations between Spain and Germany. When, however, Granada became itself a source of infection, the inhabitants altogether failed to take any precautions for preventing the further pollution of the river as it passed through their town. Together with the Darfo, the Genil forms the main sewer of Granada, and yet further down on its course there are numerous villages and towns whose inhabitants drink its waters. This river consequently carried the cholera through the province of Granada, and even into the province of Cordova. One after another the villages and towns on either bank were invaded by the dread disease, the town of Loja, with its 12,000 inhabitants, alone enjoying comparative immunity. Here there were only two or three cases a day, the maximum being seven cases; but the people were not in the habit of drinking the waters of the Genil; they had a different and a pure supply. Similar illustrations of the fatal effects resulting from river pollution will be found throughout Spain: and there can be no difficulty whatever of establishing the necessity of stringent legislation on this subject.

LITHÆMIA, OXALURIA, AND PHOSPHATURIA.

ARE there such things as lithæmia, oxaluria, and phosphaturia? If so, are they mere accidents, or are they to be associated with a diathesis? Has each a separate significance and diathesis, or do they run into each other and interchange? Which is the organ or organs most at fault? Is it the nervous system or the digestive system, or that greatest of all sinners, the liver? What are the relations of such states of the urine to nervous symptoms, such as vertigo and palpitation, to hysteria, to flatulence, to rhematism, to gout? Such are the kind of questions which have been discussed in a very interesting paper by Dr. C. L. Dana, at a meeting of the Practitioners' Society of New York, and in an equally interesting and well-sustained discussion which followed, and which has been reported in the New York journals. We can only indicate the principal points in the views of Dr. Dana. He thinks the term "oxaluria" might be dispensed with, and that oxaluria is oftenest only an indication of lithiasis. In about one-fifth of the cases showing exaggerated nerve-irritability he has found evidence of over-acid urine, with excess of urates, and benefit has followed anti-lithic treatment. In some cases, even where the urine was cloudy and feebly acid, he has found on analysis—and he insists on careful analysis of the urine in such cases—that there was in reality a small amount of phosphates and an excess of urates. We certainly do meet in practice now and again a case with flatulence, vertigo, palpitation, perhaps retching, great distress and fear, and probably depression, in which the urine is excessive, alternately loaded with phosphates, and charged with coarse crystals of uric acid. Dr. Dana gives the case of a married woman aged fifty, who complained of great nervousness, confusion of mind, irritability, and depression. She had no organic disease anywhere. Her father died insane; her mother was rheumatic; of seven brothers and sisters nearly all were rheumatic, but had no nervous troubles. She had some muscular pains. Her urine was cloudy with phosphates, neutral. On precipitation with Teissier's solution the phosphates were below normal, the urine, on the first test, acid, sp. gr. 1022, with an excess of phosphates and a slight excess of urates. Under bicarbonate of potash there was slight improvement. In none of his 110 cases, in which urinary and nerve troubles were combined, was he able to get the slightest evidence of developed gout. He finds that in cases of neurasthenia of the gastric type there is often an excess of uric acid or some rheumatic taint, to which treatment should be directed. Phosphaturia, so-called, he seems more doubtful about, and when it does happen regards it as due to either a peculiar diet or insufficient innervation of the digestive organs, to be treated by mineral acids, strychnine, &c. But in the vast majority of cases phosphaturia is only an evidence of indigestion. Not only in Dr. Dana's paper, but in the discussion which followed, the thing which strikes us most is the praise given to a nitrogenous diet and the regulation of the liver—an organ for which Dr. A. A. Smith said his respect was constantly increasing.

A LIQUOR LICENCE FOR THE EAST LONDON PEOPLE'S PALACE.

THE question whether a liquor licence should be added to the other attractions of the People's Palace for East London has not been asked too early. There can be little doubt that the answer to this question will have an important bearing upon the future of the institution. The founder's intention, also, with regard to such a question should not, if we understand aright the object of the Beaumont Trust, be difficult to determine. The idea evidently is that a centre of culture combined with recreation should be formed for the proper benefit of a large body of the public, especially the artisan public, of London. It recognises the fact that the national intelligence requires development in every grade of the social scale, and it aims at extending more widely than heretofore the influences which refine life and which commonly come of well-directed education. The accomplishment of these ends would certainly be rather hindered than helped by the introduction of a bar in the proposed Palace. Experience testifies in favour of abstinence as a guarantee for order. The principle of temperance, moreover, is diffusing itself among all classes, and there is no reason to think that the popularity of this institution would be lessened by its public assertion there. Necessity can hardly be shown for an opposite course. It would certainly be wise to have within easy reach a supply of stimulants to be used in cases of emergency from illness or accident, but any provision for a freer traffic in intoxicants would, in our opinion, be a mistake.

THE ETIOLOGY OF BERI-BERI.

AN interesting contribution to the knowledge of the disease Beri-beri has recently been made by Dr. Lacerda, director of the physiological laboratory in Rio de Janeiro. During a visit to the island of Marajó he investigated with a good deal of care, and with the help of Senor Gustavo Rumbelsperger, an epizootic prevalent there, affecting chiefly horses and pigs, and known by the names "hip pestilence," "quebrabunda," "straddling disease," and came to the conclusion that this was identical with Beri-beri. The first symptom is debility, the animal losing its natural vivacity; it then walks with an uneven gait, its nostrils dilate, and its breath becomes short, and the penis is protruded from the prepuce; it then becomes restless and unwilling to remain in one position, constantly varying the point of support for the hind legs, keeping one of them always at rest. Shortly the characteristic symptom of staggering in the hind legs appears, the horse seeming to have broken his haunches and being unable to control the movements of his hind legs; the abdomen is retracted, the stools voided with difficulty as hard lumps, sometimes covered with mucus; there is also dysuria. Usually there is neither anorexia nor great thirst, and only in rare instances is there any fever. Sometimes paralysis and dropsies appear; ulceration, emaciation, and atrophy are also observed. The disease proves fatal occasionally in a few days, but some horses linger for weeks or months. Twenty-two necropsies were made, the blood being

dark and viscous, and the viscera dark, swollen, and softened with ecchymoses in the bladder and omentum. The medulla presented sclerosis variously diffused, also a number of cells like the generative organs of ascomycetes and some mycelium. The water of Lake Arary in the island was found to contain a polymorphous microphyte belonging to the group Ascomycetes. This in its original condition, as well as when passed through several cultivations, produced in rabbits, pigs, birds, and monkeys inoculated with it symptoms closely resembling those of the "hip pestilence." The post-mortem appearances and cultivations of the blood in both cases were so similar that Dr. Lacerda was led to believe that the "hip pestilence" is due to drinking the water of the lake. He, moreover, concludes from the symptoms and pathological appearances of Beri-beri that it is also identical with the "hip pestilence" of Marajó. His pamphlet is illustrated by excellent engravings and photographs, and had it been written in some language more read by European medical men than Portuguese, it would probably have attracted some attention.

A SCURVY-STRICKEN CREW.

FOUR of the crew of the *Medusa*, owned by London shipowners, were admitted into the Seamen's Hospital last week suffering severely from scurvy. The ship had been about 150 days on her passage from Cocos Island in the Bay of Bengal, and during the voyage every member of the ship's company had suffered more or less from scurvy, whilst one seaman had died and was buried at sea. It may be suggested that he did not die from scurvy, but as his legs presented the large discolourations characteristic of the disease some two or three days before he died, and as shortness of breath was his most prominent symptom, we may fairly assume that it was probably one of the usual pulmonary complications of severe scurvy that killed him. The crew lived on salt beef and salt pork of variable quality, and bread that towards the end of the voyage was so mouldy and weevilly as to be absolutely uneatable. For some six or seven weeks after sailing eight pounds of preserved meat were served up once a week, and divided among twenty men—i.e., two-fifths of a pound per man once a week. The lime-juice is stated to have been excessively sour. It is quite exceptional for us to record in late years that four men have been admitted into one hospital with this disease from a British ship, and we hope that the Board of Trade will not stop at merely sending a medical inspector to inquire into the circumstances. There cannot be a doubt that great neglect or carelessness must have existed in provisioning the vessel for the homeward voyage, and it is most unjust to the crew that the question of responsibility should be quietly allowed to drop.

ENTERIC FEVER AT SUAKIM.

THE etiology, nature, clinical course, and pathology of enteric fever and its subtropical associates formed the ground for an interesting discussion on Dr. J. E. Squire's paper read before the last meeting of the Royal Medical and Chirurgical Society, which occupied the whole evening. Army medical men were to the front, and some valuable material was contributed, especially by Dr. Marston, as well as some weighty remarks on the nature of the diseases by Dr. Broadbent. The interest chiefly centred about the pathological nature of a disease or diseases avowedly possessing some clinical similitude. It appears to be not improbable that we are really concerned with at least two distinct affections. Notwithstanding that on this point a diversity of opinion prevails, we must give our adhesion rather to the view put forward by Dr. Broadbent, who believes that a typho-malarial fever exists distinct and separate from typhoid fever. The view that the so-called typho-malarial affection is a greatly modified form of enteric fever is a hypothesis worthy of entertainment, though, on Dr. Broadbent's showing, the clinical course of each malady, though having a certain resemblance in the protracted high pyrexia, differs nevertheless in many particulars, while the post-mortem phenomena have a marked contrast in the absence of intestinal ulceration in the one case, and its presence in the other. In his paper Dr. Squire appeared to show that the enteric disease at Suakim chiefly attacked those soldiers who had resided for some time in the district, but Dr. Marston brought forward some weighty facts, lending powerful support to the view that recent arrivals in an infected district were most prone to take the disease, and that age exercised considerable influence in the same direction. We do not appear to have arrived at any further knowledge on the vexed question of the mode of origin and dissemination of typhoid fever, though one speaker emphatically adopted what he called the military as opposed to the civil view, that enteric fever was frequently of spontaneous origin. In this respect he had the support of the authority of the late Dr. Murchison, whose name of "pythogenic fever" still rings in the memory of those who follow the teaching of this master on the subject of continued fevers. Whether the cause of malarial fever and that of enteric fever fuse in a sort of chemical fashion to produce in the human body a new kind of disease is a moot point. In this regard Dr. Broadbent, confining himself to the nature of the diseases, and believing that at least two affections were in question, expressed no positive opinion as to the etiology of the typho-malarial disease.

FOREIGN MEDICAL APPOINTMENTS.

DR. HIS, Professor of Anatomy in Leipsig, and Dr. Gegenbaur, Professor in Heidelberg, have been elected Corresponding Members of the St. Petersburg Academy of Sciences. Dr. Furbringer of Vienna has been selected out of twenty-four candidates as successor to Dr. Riess at the Municipal Hospital in Friedrichshain, near Berlin. Dr. Joh. Janosik has been appointed Professor of Histology and Embryology in the Czechish Medical Faculty of Prague. Dr. Sattler, Professor of Ophthalmic Surgery in Erlangen, has accepted a "ruf" to Prague. Professor von Recklinghausen, of Strasburg, has been elected a Corresponding Member of the Berlin Academy of Sciences.

POLLUTION OF RIVERS.

A DEPUTATION last Friday waited on the Lord Mayor to request the use of the Mansion House for the purpose of holding a public meeting on the subject of rivers pollution. The Lord Mayor, in consenting, stated that the matter was of immense importance, that every day there was emptied into the Thames at Crossness from 80,000,000 to 120,000,000 gallons of sewage matter, and that rivers should be as free from pollution as practicable. He decided that the meeting should be held on Wednesday, March 10th. In the meantime the Lea Conservancy Board have not been idle, but have proceeded in the Hertford County Court against the Ware Board of Guardians, the rural sanitary authority of that district, for allowing sewage to go from Hoddesden Sewage Farm into a ditch or water-course, a tributary of the river Lea. The decision of his Honour Judge Abdy is of much importance as showing that the Conservancy Board have very considerable powers for the prevention of the pollution of that river. The sewage, it was proved in evidence, was conveyed to a farm owned by the sanitary authority but leased to a farmer, and which is bounded by a ditch. The sewage escaped from the ditch into three channels, and

thus into the Lea, but these channels were not the property of the sanitary authority. It was argued on behalf of the latter board that they were not responsible on this account, and also because the farm was not in their immediate possession, but his Honour, in giving judgment on these and other minor points, decided against them, and made an order requiring them to abstain from committing the nuisance within two months.

RECURRENCE OF TYPHOID FEVER AT KIDDERMINSTER.

A RECENT recurrence of typhoid fever at Kidderminster has been associated with the discovery of conditions affecting the water-supply of the town, which are of serious importance. It will be remembered that when the town was last year visited with the disastrous epidemic on which we commented at some length, it was not found possible to state with certainty what relation the water-supply had had to the outbreak. The town exhibited so many of the conditions with which typhoid fever is habitually identified that suspicion attached to many other things besides water, and it is certain that some of these, such as the state of the sewers, afforded ample means for the dissemination of the infection when once introduced. But all along there were grave grounds for fearing that the lower well might have become polluted by means of circumstances connected with the neighbouring sewage tanks. The lower well was not originally intended to serve as a well; it was indeed a "sump," to take away water from the vicinity of the sewage tanks. But as nothing definite could be discovered concerning it in relation to the epidemic, the well was not abandoned, but it was tubed, and the space outside the tube was filled in with concrete, pending the provision of a supply which should be above all suspicion, and which had been recommended by Dr. Parsons in his report to the Local Government Board. Since then, however, no special steps appear to have been taken to provide such a supply, and the well water being again used, it appears that some fresh excavations have led to the discovery of an old drain, twenty feet below a footpath by the side of the well, and this drain is stated to have contained a quantity of black matter resembling sewage. Once again the supply has been stopped, and Dr. Parsons, as also Mr. A. Taylor, of the Engineering Department of the Local Government Board, have visited Kidderminster with a view of ascertaining what is the true significance of the discovery which has been made. Even now it is by no means certain that the continuance of typhoid fever in Kidderminster is due to the use of this water; indeed, so far we do not gather that the distribution of the cases has any definite relation to the distribution of this special water-supply. It must also be remembered that, in view of the sanitary circumstances of Kidderminster, as revealed by Dr. Parsons, there is nothing striking in the recurrence of cases of typhoid fever after such an epidemic as the town suffered from. Indeed it is most difficult, when hundreds of centres of infection have been scattered about a town, to get rid of the possibility of such recrudescences as have occurred in this case. But one thing appears tolerably certain, and that is that the relation of this lower well to the sewage works and to certain drains is such that no one can say that the water-supply is not subject to the risk of pollution, and under the circumstances it cannot be right to go on supplying such a water to the population. The duty of the Town Council is to supply the inhabitants with a wholesome water, and the mere fact that chemical evidence is not forthcoming as to its being unwholesome is no reason for continuing to resort to the supply from this well in view of its dangerous surroundings, and of the conditions already discovered in its immediate neighbourhood. Dr. Parsons from the first urged the Town Council to abandon this suspected well, and to procure a supply which should be free from all risk of pollution. No delay that can be avoided should take place in giving effect to this recommendation.

ATTENDANCE BY UNQUALIFIED ASSISTANTS.

THE Leeds papers contain the report of a decision by the County Court judge in several cases in which a practitioner, Mr. H. A. Allbutt, was the plaintiff, who sought to recover charges for medical attendance which had been chiefly paid through an unqualified assistant, living at a separate house at Hunslet. The name on the house was that of the unqualified assistant, and the house is really his (Mr. W. H. G. Bowell's), and not that of Mr. Allbutt, who lives in Leeds. The bills were made out in the name of Mr. Allbutt, and he was supposed to see serious cases. The judge ruled that the charges by Mr. Allbutt could not be recovered, because it was only a fully qualified man who could recover, and that must be when he practised himself, and did not carry it on by living away from the place. This decision can surprise no medical man after the severe way in which both the Medical Council and the Courts have regarded a system of the kind involved in the above arrangements. The case is in one respect not so bad as some. The assistant's name was boldly placed over the house, so that people had the means of knowing that they might expect to be attended by him and not by Mr. Allbutt. But it is clearly possible that many people might be deceived into thinking that Mr. Bowell was a qualified man. In one of the cases Mr. Allbutt had not seen the patient at all. In others he had seen them several times. But in all the cases the judge gave a verdict for the defendant, and described the practice as illegal.

LEAD-POISONING BY HOUSEHOLD UTENSILS.

THE German Parliament has now under consideration a Bill which is intended to regulate the employment of lead in the manufacture of cooking and other domestic utensils, and so to diminish the risk of poisoning by that metal. The provisions of this measure certainly do not err on the side of leniency. They forbid the use of vessels containing more than 10 per cent. of lead in their composition for the above purposes. No alloy with over 1 per cent. may be used in coating iron articles used in cookery. Solder may consist of lead to one-tenth of its amount, but no more. Enamels into which lead enters are treated with equal stringency. The effect of this Bill, if it be passed, will be to obliterate the legal existence of pewter and of soft solder as at present made, since these alloys contain from one-half to one-fourth of their weight of lead. One fact which it brings into prominence is that lead-poisoning in Germany appears to arise from other causes besides those to which it is commonly attributed in this country. Cases of this kind among ourselves are usually found in the persons of those who are actually engaged in handling lead or its compounds in their daily occupation. Plumbers, painters, glass-blowers, glaziers, potters, and enamel-card makers furnish the majority of those who suffer from plumbism. When this disorder appears in the household, new paint in the walls or the lead work of the water service affords a clue to its detection. It is comparatively rare to find in these days that pewter pots or cooking utensils are at fault. This may be because glass is used on the whole far more frequently than pewter in the liquor trade; while in the kitchen those vessels the contents of which are most likely to become contaminated with lead in the solder—such, for example, as preserving pans—are usually made of brass or copper (which is kept well burnished), and present a relatively trifling soldered surface, or are lined with porcelain. The water

used in cooking also acts as a protective, since the lime salts contained in it tend to prevent the solution of lead. The proposed German legislation on this subject is very perfect in theory so far as it goes. Possibly it may be called for by the teaching of experience. In this country it would probably be found to be needlessly severe, and would not cover the chief causes of the evil which it is intended to meet. We do not see how it can do this even in Germany, unless measures of equal rigour be adopted to control the use of lead in manufactures and in its other domestic applications. The introduction of these further restrictions might fitly exercise the judgment of our own as well as foreign legislators.

THE SURGICAL TREATMENT OF ACUTE NECROSIS.

THE diseases of bone occurring before the growth of the body is completed, or at least before the bones themselves have attained their ultimate length, appear to possess more interest than similar diseases in the adult, not only on account of their greater physiological bearings, but from their pathological and clinical importance. The discussion on Mr. Bernard Pitts' paper, read before the Medical Society of London, showed the keen interest that surgeons take in these diseases, as well as the impossibility of estimating certain pathological conditions pertaining to the osseous lesion. A knowledge of the depth to which the necrosis extends is far more difficult of attainment than an estimate of the extent or length of bone involved. The first case narrated by Mr. Pitts illustrates the advantage of opportune but conservative surgical interference in cases of limited necrosis when the patient's constitutional powers are flagging, as well as the circumstance that the removal of even a considerable amount of new bone need give rise to but little apprehension as to the ultimate successful regeneration of a large part of the shaft of the tibia. As Mr. Pearce Gould remarked, we needed some simple means for appraising the depth to which necrosis extended; but still, in Mr. Pitts' case, it was a question of local treatment not for local ends but for constitutional welfare, for under expectant treatment the patient was slowly sinking; and so the consideration of a little living bone, more or less, was not a matter of the first magnitude. Whether in some cases of a more chronic sort and with less lowering of general health, the adoption of M. Ollier's method of trephining the diseased bone in attempting to estimate the situation of the line between living and dead bone in the thickness of the diaphysis can be made practically available for surgical purposes appears to admit of some doubt, and there is always the chance that fresh absorptive processes may be set up, with their pyæmic outlook.

THE SANITARY STATE OF MILE-END.

MR. T. HAMER, of the Mansion House Council, challenges the accuracy of certain statistics which the vestry recently submitted at the public inquiry into the sanitary condition of Mile-end Old Town, and from which it appeared that, according to Dr. Corner's last annual report, the death-rate from zymotic diseases was only 1·2 per 1000. Dr. G. B. Longstaff, whose accuracy as a statistician is above all suspicion, has reported to the Mansion House Council that the rate should properly be 3·6 per 1000. The difference appears to be due to several causes. According to Mr. Hamer, Dr. Corner in one of his tables states that there were no deaths from enteric fever, whereas elsewhere he admits that there were 16 from typhoid fever, which everyone nowadays knows to be the same disease. Then, again, the deaths which occurred amongst Mile-end residents in the Metropolitan Asylums Board hospitals are apparently excluded from the figures on which Dr. Corner's rate was founded. But apart from this, Dr. Longstaff shows that, whereas Dr. Corner's figures only show 140 deaths from the so-called zymotic diseases, the Registrar-General's returns show 350. This difference is largely due to the fact that Dr. Corner has not included diarrhœa as a zymotic disease. This, of course, he is entirely at liberty to do, for there is hardly any more unfortunate term in use than that which lumps together such diseases as diarrhœa, whooping-cough, &c., under one heading, whilst all skilled observers know that in so far as sanitary circumstances are concerned they have nothing in common. Still, where comparisons are made the same diseases must, of course be dealt with.

MYCETOMA AND ACTINOMYCES.

AT the last meeting of the Medical and Physical Society of Bombay, held on Jan. 8th, the President, in exhibiting a patient affected with mycetoma (ochroid form), took occasion to point out the similarity of aspect as regards form, size, differentiation of parts, and general arrangement of the characteristic pale particles of mycetoma, as compared with a representation of the actinomyces body given in the English translation of Ziegler's Pathological Text-book (vol. ii., p. 243), upon the authority of Dr. Sims Woodhead. Several members of the Society, including the past and present teachers of pathology in the Grant Medical College, after scrutinising the specimens and drawing, agreed that such resemblance was indubitable. A note was also handed in briefly summing up the main points of likeness and difference between the two diseases in question, and stating that in the pale mycetoma bodies neither bacilli nor other defined bacterial organisms were visible after staining by the usual methods. Should subsequent inquiry establish the identity between one form at least of actinomyces with a frequent variety of mycetoma, it will be worth recollecting that the fungus disease of India was identified in 1859 (*vide* Dr. V. Carter's essay in the Society's Transactions for 1860), the corresponding parasitic affection of Europe being made known in 1877-79.

THE MEDICAL COUNCIL AND THE ROYAL COLLEGE OF SURGEONS IN IRELAND.

THE Royal College of Surgeons in Ireland have again elected Mr. Rawdon Macnamara to represent the College in the General Medical Council. His election was not without opposition. We do not always agree with Mr. Macnamara, who believes too absolutely in all existing institutions, and especially in his own college, and all its regulations. But such a quality does not explain the opposition to his election, the failure of which, we fancy, most of Mr. Macnamara's colleagues in the Council will not regret, for though always ready to hold his own, he does so with uniform good temper and much ability.

MICROBES OF INFECTIVE OSTEO-MYELITIS.

M. BERTOYE has reinvestigated this subject, and discovered the staphylococcus pyogenes albus, which he has succeeded in cultivating in bouillon and in transforming into coccus aureus. By intravenous inoculation in a rabbit osseous lesions and purulent disseminated foci have resulted. Cultivation of the morbid products of the induced disease led to the development of the orange-coloured micro-organism. He believes that the microbe of osteo-myelitis can be made to give rise in bone and other tissues, and especially the skin, to chronic suppurations without local or general reaction—in other words, to an attenuated form of the disease. The microbe takes on the white form in some cases of the attenuated malady. The staphylococcus albus may be transformed into the staphylococcus aureus by being sown in and passing through different animal media.

These cultivations have been shown by M. Rodet to increase the vitality and the virulence of the micro-organism, and it seems reasonable to connect this augmentation with the change in colour. The modification in virulence and colour of the staphylococcus albus may possibly be due to a massing together of the microbes. It will be perceived that on M. Bertoye's showing the microbe of osteo-myelitis gives rise to an attenuated form of the disease when it presents itself under the white aspect and, consequently, when the density of its colonies is least marked.

SUBCUTANEOUS INJECTION OF OXIDES OF MERCURY.

SUBCUTANEOUS injections of the black and red oxides of mercury have been recently tried as an anti-syphilitic treatment in the Lazarus Hospital at Warsaw by Dr. von Watraszewski, who has charge of the syphilitic wards. He finds that no inflammation and scarcely any pain is produced, no abscess having occurred after any of the 200 injections he has performed. The therapeutic results were most satisfactory both in recent cases and in those where the disease was of old standing.

THE DARLINGTON HOSPITAL.

A CORRESPONDENT writes:—"The whole of the honorary staff of the Darlington Hospital have sent in their resignations to the committee, owing to the extremely unsatisfactory condition of the nursing department, and the refusal on the part of the committee to take necessary measures to ensure reform. There have been several changes of house-surgeons during the last twelve months on account of the same difficulty."

ANTIPYRIN IN PHTHISIS AT DAVOS.

DR. HOEDMAKER, a Dutch physician, practising at Davos Platz, has made a number of observations on the effect of antipyrin on phthisical patients, from which he has come to the conclusion that patients not treated with antipyrin are more comfortable than those who are taking it, though these latter have less fever. He has found salicylic acid most valuable in phthisis, especially when combined with arsenic.

CHOLERA IN SPAIN.

THERE has for some months past been rumours of the continued prevalence of cholera in different parts of Spain, and now definite intelligence comes from Gibraltar to the effect that several fatal attacks have occurred at Tarifa, the most southern point of the peninsula.

DR. DIPLOCK, coroner for West Middlesex, has just forwarded to the Home Office his annual report of the number of inquests and an analysis of the verdicts for the year 1885. During that period there were 1091 cases reported to him, in 250 of which, after investigation, he did not consider inquests necessary. The number of inquests held was thus 841, and these are classified as follows:—On persons under one year, 250; above one year and under sixteen years, 152; above that age, 439. The amount expended in fees &c. was £1623. The population of the forty-nine parishes and districts comprising the Western Division of Middlesex is about 629,000.

AN epidemic of typhus fever, believed to be largely the result of squalor and destitution, has broken out in a district of Leeds inhabited by the poorest class. The officers of the sanitary department have adopted precautions to check the disease.

A FEW weeks ago we called attention to the sad death of a lady at Sunderland through swallowing a set of false teeth, and cautioned the users of these appliances against such accidents. Another death from the same cause—that of a gentleman at Dublin—has just occurred, and again we urge, on the joint grounds of cleanliness and safety, the removal of such teeth at the time of retiring for the night. It is the duty of medical men, no less than of the dentist who supplies these articles, to point out to the patients the advisability of such procedure, and the dangers attending a neglect of so plain a duty.

A NEW Russian journal devoted to surgery is about to be brought out under the auspices of Professors Sklifosofski and Tauber. The editorship of the journal *Practicheskaya Meditsina* (Practical Medicine), vacant by the decease of Dr. Hirschfeld, has been undertaken by Dr. M. J. Afanasyeff, private lecturer in the St. Petersburg Military Medical Academy.

ON Monday week last, February 1st, at the London Hospital, Mr. Frederick Treves removed from a woman, aged thirty-five, the left kidney, together with both ovaries—the kidney for hydronephrosis, the ovaries for multilocular cystomata. The patient, we understand, is doing remarkably well.

ON the 10th inst., Dr. Angus Macdonald expired at his residence in Edinburgh. The deceased, who was fifty years of age, was four years ago compelled for nearly twelve months to abandon all professional duty and seek repose in the south of France, and since then he has, it is supposed, overworked himself.

PROFESSOR C. G. SANTESSON, one of the most renowned surgeons in Sweden, who was attached to the Carolina Institute in Stockholm, has just died, at the age of seventy-six, from cardiac disease. The deceased professor studied in Stockholm, Upsala, and Copenhagen.

MR. R. MONTGOMERY M.R.C.S., Governor of the Apothecaries Hall, Ireland, has been appointed Secretary of that body, in place of Dr. E. H. Leet, resigned.

DR. LUCHSINGER, Professor of Physiology in Zurich, has died at Meran. It is expected that Dr. Gaule, who has been lecturing for him, will be elected.

MR. THOMAS WARNER, J.P., a well-known and widely respected surgeon, died on the 7th inst. at his residence in Cirencester, at an advanced age.

THE Prussian Order of the Red Eagle, third class, has been conferred on Dr. Bergmann, Professor of Surgery in Berlin.

DR. HORNER, Professor of Ophthalmology in Zurich, has been obliged by ill-health to give up his post.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—The annual meeting of the governors of this institution was held on the 10th inst. The number of new patients during the past twelve months was 6630, and of these 129 received in-door treatment. Since the institution of the charity in 1857, 103,901 patients have been relieved, and, notwithstanding the strictest economy compatible with efficiency, the expenditure during 1885 considerably exceeded the income. The committee earnestly plead for continued and increased funds.

MR. T. PRIDGIN TEALE ON FIREPLACE CONSTRUCTION.

SIR ROBERT CHRISTISON in his autobiography, which we trust soon to notice, shows us how narrowly the science and art of surgery escaped losing the genius of Syme by his aptitude for practical chemistry. The discourse of Mr. Teale on Friday night, at the Royal Institution, shows how easily the surgical art might have lost him had he given early reins to his mechanical faculties. The subject of firegrates may seem one somewhat alien to the surgical mind, but if the studies of Mr. Teale lead to less poisoning of the atmosphere by the products of coal consumption, and to greater warmth of our houses in inclement weather like this, he will have earned the gratitude of the public and of invalids; and if he reduces the cost of coals by one-fourth, he will deserve the thanks of all who in these hard times have difficulty in making ends meet. The audience, presided over by Lord Bramwell, and including Sir William Bowman and other distinguished persons, was numerous and most attentive. We may take this opportunity of saying that Mr. Teale's fireplace may be seen at Nelson's, 10, Royal Arcade, Old Bond-street. We shall best describe Mr. Teale's views as to the principles of domestic fireplace construction by quoting his rules, which he states with great brevity, and which are as follows:—1. As little iron as possible is to be used. 2. The back and sides of the fireplace should be of brick or firebrick. 3. The firebrick back should lean over the fire, and not lean away from it. 4. The bottom of the fire, or grating, should be deep from before backwards, probably not less than nine inches for a small room, or more than eleven inches for a large one. 5. The sides or coverings of the fireplace should incline to one another, as the sides of an equilateral triangle. 6. The lean-over at the back should be at an angle of 70°. 7. The shape of the grate should be based on a square described within an equilateral triangle, the size to vary in constant proportion to the side of the square. 8. The slits in the grating, or grid, should be narrow, perhaps a quarter of an inch for a sitting-room grate and good coal, and three-eighths of an inch for a kitchen grate and bad coal. When the slits are larger they allow cinders to fall through—in other words, waste. 9. The front bars should be vertical, that ashes may not lodge and look untidy, narrow (perhaps a quarter of an inch in thickness), so as not to obstruct heat, and close together (perhaps three-quarters of an inch apart), so as to prevent coal and cinders from falling on the hearth. 10. There should be a rim an inch or an inch and a half in depth round the lower insertion of the vertical bars. 11. The chamber under the fire should be closed by a shield or economiser. 12. Whenever a fireplace is constructed on these principles, it must be remembered that a greater body of heat is accumulated about the hearth than in ordinary fireplaces, and corresponding care taken by an ashpan against heating wooden beams, &c. This ash-pan should have a double bottom, the space between the two plates being filled with artificial asbestos, slagwood two inches in thickness. 13. A fireplace on this construction must not be put in a party wall where there is no projecting chimney-breast, lest the heated back should endanger woodwork in a room at the other side. The benefits aimed at by Mr. Teale are:—1. Economy of fuel. 2. Reduction of soot. 3. Reduction of ashpit refuse. Mr. Teale astonished his audience by showing two small glass bottles containing the small ash residue of the coal burnt in his fireplaces, which consisted not of cinders, but very fine powder. As to the saving of coal, the general manager of the Leeds Infirmary estimates that in that institution it amounts to a sixth, or 100 tons in the year. We have only space left to say that from some observation of Mr. Teale's own fireplaces, and some experience of them, we believe he has got hold of the right principles and in a large measure of the details. He was careful with the true candour of a scientific man, to show how curiously his discoveries were anticipated last century by that remarkable man Count Rumford, who did study medicine, but, unlike Syme and Teale, drifted into other pursuits and was lost to the medical art.

HEALTH OF THE UNITED STATES ARMY.

FROM the Report of the Surgeon-General of the United States Army, we learn that the general health of the troops has been exceptionally good. The respiratory organs were most frequently affected, there being 83 cases of pneumonia amongst 24,035 men, the mortality from this disease being 25 per cent. of the cases. The report tends to show that the native-born American soldier has a greater power of resisting disease and death than the foreign members of the Army. Of these the mortality is greatest amongst the Irish, the Germans coming next, and the English last. The money value of the medical and hospital supplies for the fiscal year, ending June 30th, 1885, was $171,205. In view of the expected approach of the cholera, an appropriation of $250,000 is asked for, for the ensuing year—this increase to provide for emergencies that may arise. During the months of April, May, and June, an Army Medical Board was in session in New York city, and examined nineteen candidates for the position of assistant-surgeon, of which number three were found qualified and sixteen rejected. At present there are no vacancies in the corps. A list is given of the medical officers who have died, at the head of which is Col. and Brev. Brig. Gen. Charles McDougal.

The Surgeon-General recommends the regular organisation of a corps to provide trained cooks, nurses, and attendants for the service of army hospitals. The present system of hospital service by details from the troops garrisoning a post is found to be unsatisfactory and objectionable. He also urges the necessity of providing ice machines for the extremely hot regions of Texas and Arizona, of sufficient capacity to liberally supply the garrison, as a measure not so much of luxury as of necessity for the comfort of the troops and the treatment of the sick. In the matter of hospital stewards, he recommends the enactment of a Bill, providing for two classes—those appointed by the Secretary of War and permanently attached to the Medical Department to constitute the first class, and those appointed by the written order of a commanding officer upon the recommendation of a medical officer to constitute the second class; the monthly pay of the former to be fifty dollars, and the latter twenty-five dollars.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 6239 births and 3872 deaths were registered during the week ending February 6th. The annual death-rate in these towns, which had been equal to 23·8, 22·8, and 22·1 per 1000 in the preceding three weeks, was last week 22·2. During the first five weeks of the current quarter the death-rate in these towns averaged 22·6 per 1000, and was 2·2 below the mean rate in the corresponding periods of the ten years 1876-85. The lowest rates in these towns last week were 13·4 per 1000 in Brighton, 16·0 in Halifax, 17·7 in Bristol, and 18·3 in Hull. The rates in the other towns ranged upwards to 25.0 in Derby, 26·8 in Blackburn, 27·1 in Manchester, and 27·9 in Portsmouth. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had declined in the preceding four weeks from 448 to 360, were 376 last week; they included 175 from whooping-cough, 76 from measles, 35 from scarlet fever, 35 from diarrhœa, 30 from "fever" (principally enteric), 23 from diphtheria, and only 2 from small-pox. No death from any of these zymotic diseases was recorded during last week either in Wolverhampton or in Halifax; whereas they caused the highest death-rates in Nottingham, Plymouth, and Bolton. The greatest mortality from whooping-cough occurred in Portsmouth and Bolton; from measles in Nottingham and Plymouth; and from scarlet fever in Preston, Leicester, and Birkenhead. The 23 deaths from diphtheria in the twenty-eight towns included 14 in London, 2 in Liverpool, and 2 in Sheffield. Small-pox caused but 1 death among the residents of London and its outer ring, 1 in Liverpool, and 1 in Birkenhead; while no death from this cause occurred in any of the twenty-five other large towns. The number of small-pox patients in the metropolitan asylum hospitals situated in and around

London, which had declined in the preceding twelve weeks from 90 to 22, had further fallen to 18 on Saturday last, and but 1 new case was admitted to these hospitals during the week. The Highgate Small-pox Hospital contained 3 patients on Saturday last, one case having been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had been 534, 477, and 478 in the preceding three weeks, were 479 last week, and were, in spite of the cold weather, as many as 166 below the corrected weekly average. The causes of 85, or 2·2 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Sunderland, Brighton, Bolton, and in five other smaller towns. The largest proportions of uncertified deaths were registered in Oldham, Bradford, and Leicester.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 23·9, 23·1, and 22·4 per 1000 in the preceding three weeks, further declined to 21·3 in the week ending February 6th, and was 0·9 below the mean rate during the same week in the twenty-eight English towns. The rates in the Scotch towns last week ranged from 13·3 and 16·5 in Leith and Paisley, to 20·3 in Aberdeen and 26·1 in Glasgow. The 527 deaths in the eight towns showed a further decline of 26 from the numbers in recent weeks, and included 9 which were referred to whooping-cough, 6 to scarlet fever, 6 to diarrhœa, 5 to diphtheria, 3 to "fever" (typhus, enteric, or simple), 3 to measles, and not one to small-pox; in all, 32 deaths resulted from these principal zymotic diseases, against 40, 36, and 37 in the preceding three weeks. These 32 deaths were equal to an annual rate of 1·3 per 1000, which was 0·9 below the mean rate from the same diseases in the twenty-eight English towns. The deaths referred to whooping-cough, which had been 6 and 13 in the previous two weeks, declined again last week to 9, all of which occurred in Glasgow. The 6 fatal cases of scarlet fever were also all returned in Glasgow, and also showed a decline from the number in the previous week. Of the 5 deaths referred to diphtheria, exceeding the number in the previous week by 2, 3 occurred in Glasgow, 1 in Aberbeen, and 1 in Leith. The fatal cases of "fever," measles, and diarrhœa were considerably below the average numbers for the time of year. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 160 and 156 in the preceding two weeks, further declined last week to 135, and were 54 below the number returned in the corresponding week of last year. The causes of 75, or more than 14 per cent., of the deaths in the eight Scotch towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 33·3, 29·6, and 31·9 per 1000 in the preceding three weeks, rose to 33·7 in the week ending Feb. 6th, and exceeded by no less than 11·5 the mean rate during the same week in the twenty-eight English towns. During the first five weeks of the current quarter the death-rate in the city averaged 31·5 per 1000; the mean rate during the same period not exceeding 22·6 in London, and 18·4 in Edinburgh. The 228 deaths in Dublin last week showed a further increase of 12 upon the numbers returned in the previous two weeks, and included 26 which were referred to the principal zymotic diseases, against 30, 24, and 15 in the preceding three weeks; 15 resulted from whooping-cough, 6 from "fever" (typhus, enteric, or simple), 3 from scarlet fever, 2 from diarrhœa, and not one either from small-pox, measles, or diphtheria. These 26 deaths were equal to an annual rate of 3·8 per 1000, the rate from the same diseases last week being but 2·6 in London and 0·2 in Edinburgh. The fatal cases of whooping-cough, which had been 19, 17, and 13 in the preceding three weeks, rose again last week to 15. The deaths referred to "fever" and to scarlet fever also showed an increase upon the numbers in recent weeks. Seven inquest cases and 4 deaths from violence were registered; and 59, or more than a quarter of the deaths, were recorded in public institutions. The deaths of infants and of elderly persons showed an increase upon the numbers in the previous week. The causes of 42, or more than 18 per cent., of the deaths registered during the week were not certified.

THE SERVICES.

Surgeon-General Howe, Chief of the Medical Department in the Southern District, has just concluded an exhaustive examination of the sanitary condition of the forts and barracks of Portsmouth. Many defects are pointed out in respect of the water-supply, drainage, and the state of the buildings, and in many cases exception is taken to the character of the dietary of the troops.

A recent communication from Coquimbo, Pacific station, contains news of the sudden death of Staff Surgeon John W. Davis, of the *Heroine*. A post-mortem revealed that he died from fatty degeneration of the heart.

INDIA OFFICE.—Deputy Surgeon-General W. A. Thomson, of the Army Medical Staff, has been appointed Principal Medical Officer of the Bombay Army.

ADMIRALTY.—The following appointments have been made:—Fleet Surgeon John Horrocks, M.D., to the *Alexandria;* Fleet Surgeon William J. Wordsworth, to the *Devastation;* Surgeons Christopher Pearson, M.D., and Henry L. Crocker, to the *Excellent;* Surgeons Herbert E. Marsh and W. E. Home, to the *Alexandria;* and Surgeon Edward W. Luther, to the *Hyacinth.*

RIFLE VOLUNTEERS.—2nd Wiltshire: Surgeon George Waylen resigns his commission; also is granted the honorary rank of Surgeon-Major, and permitted to continue to wear the uniform of the corps on his retirement.

Correspondence.

"Audi alteram partem."

THE ROYAL COLLEGE OF SURGEONS.

To the Editor of THE LANCET.

SIR,—Mr. Macnamara's sympathies are so obviously with those who are striving to bring about a readjustment of the relations existing between the Council of the College of Surgeons and the other constituent members of the body corporate and politic, that it is perhaps somewhat ungracious to quarrel with the means which he employs to carry those sympathies into effect. But I cannot help thinking that both the proposal which he made at the last meeting of the Council, and the letter which he has addressed to yourself, are calculated rather to hinder than to help a speedy and satisfactory termination of the present controversy. He would solve a constitutional problem by an appeal to the possible prejudices of a small and privileged class. Two large general meetings of Fellows and Members have recently affirmed, by overwhelming majorities, that it is desirable, first, that Fellows and Members should participate more largely in the management and affairs of the College; and, second, that no alteration should be made in the constitution or in the relations of the College, or in any of its bye-laws, without the consent of the Fellows and Members; and, at the meeting held on Dec. 17th it was suggested, in accordance with a resolution adopted by the Association of Fellows and accepted by the Association of Members, that *Members* of the College should be directly represented in the Council. To the first and second of these resolutions the Council, as is well known, has replied by a loose and inconsequential negative; to the third it has, as yet, returned no official answer.

Meanwhile, apparently with the excellent intention of expediting matters, Mr. Macnamara moved at the meeting of the Council held on the 14th ult., that the opinion of the Fellows should be ascertained as to "the advisability of Members being allowed to vote for the election of Fellows as members of the Council"; but a majority of the Council declined to consider Mr. Macnamara's motion "until after the report of the Committee on the Conditions of Admission to the Fellowship has been received." It would be difficult for an ordinary mind to discover any connexion between these two propositions; but no great harm need come of the delay, especially if it should be found that the Council was only trying to gain time and opportunity to give an effectual *coup de grâce* to the outrageous proposal

currently ascribed to one of its members to elect fifty Members of the College annually to the Fellowship, and without examination. The collocation of these two events does, however, serve to illustrate the bipartite character of the Fellowship—namely, its academical and its political side. Only the latter is properly concerned in the resolution passed at the general meetings. Viewed from this standpoint, it is certain that, except on the principle "Whatever is, is right," the Fellows have, neither in equity nor in ethics, a greater claim to be consulted than the Members. It is true, the Charter of 1843 gives to the Fellows a presumptive right to consider themselves the sole electoral body; but the abstract justice of this right has always been impugned. This Charter was obtained in violation of every canon of political honour and probity, and when granted provoked almost universal condemnation and disgust, as contemporary records abundantly testify. Nevertheless, the Fellows do at present monopolise the power of electing the Council, and so far as those who have acquired the Fellowship *by examination* are concerned, it cannot be denied that the monopoly has been obtained by fair and honourable means. But the constitutional rights of the Members, dating back to the foundation of the College, have, and must have, precedence over those acquired, long afterwards, by the Fellows. In morals this is so, notwithstanding the fact that the selfish and self-seeking founders of the College did by misrepresentation succeed in excluding the Members (there were no Fellows then) from exercising any control over the management of the College. To believe that the College was established in order "to promote the study and practice of the science and art of surgery" is a pleasant myth, and, like many other pleasant myths, has no solid foundation. The College was established in order to repair the fortunes and restore the discredited prestige of the Court of Assistants of the defunct Corporation of Surgeons. The evils under which we now suffer are the results of the corrupt constitution transmitted to us by the original Court of Assistants. These evils have at length become intolerable, and cannot any longer be silently endured. The most sweeping reform is necessary, and, as a preliminary to this, it is desirable, and, I believe, indispensable, that the Members should be directly represented in the Council. Apart from the reasonableness and justice of this contention, there are many other considerations which tell against the present dispensation. The order of Fellows is a small and diminishing one, while that of Members is a large and increasing one, the present proportion being nearly sixteen Members to every Fellow. And when in the fulness of time the authorities of medical schools, hospitals, and other public institutions come to realise that the Fellowship of the College is no longer the only criterion of high surgical attainments, and when it is decided to select candidates for public offices upon personal and professional grounds alone, one of the chief inducements to take the Fellowship will be withdrawn, and the numbers will still more seriously decline. Nor need this result be deplored if the Council persist in the policy lately purshed with respect to regulations relating to the admission to the Fellowship. But sooner or later the reduction of the number of Fellows will bring us to that point in the vicious circle from which we originally started, and the Council will become again wholly independent and self-propagating. As it is, the Council is a much less representative body than is commonly supposed. It is nominally elected by the Fellows, who number 1100, but the regulations and conditions of voting are so restricted and prohibitive that the election is practically in the hands of less than one-tenth of this number. For example, twenty of the twenty-four present members of the Council were elected by less than a total of 160 votes each, one member being elected by 101 and another by 103 votes. Surely this is tantamount to being elected by personal and private friends. So also is it with the condition of eligibility to be members of Council; these are so exclusive that even under the most liberal provisions of the most liberal Charter barely 100 Fellows can reasonably be said to be eligible. Not only must the candidate be a Fellow, but he must be a Fellow of fourteen years' standing, be in the *bond-fide* practice of his profession of a surgeon, *and not be engaged in general practice*. This reduces the area of selection to a few old or middle-aged surgeons connected with the metropolitan hospitals, and one or two rich or enthusiastic provincial surgeons. And yet a body so unrepresentative, and so out of touch with the bulk of the profession, so ignorant of its wants and aspirations or indifferent to them, arrogates to itself the right to speak and act in the name of the Royal College of Surgeons of England, to approach Parliament, and to interpose in matters of State policy. Nor is this the worst. It tyrannises the profession. At the instigation, chiefly, of an interested group of its members, who, contrary to every maxim of public morals and good government, is allowed, as examiners, to absorb a large proportion of the annual revenue of the College, the Council imposes upon the medical teachers and students of this country regulations and conditions which are too often regardless alike of public convenience and of the interests of medical education and public safety. Further, at this moment the Council is engaged in considering and elaborating a scheme by which, in conjunction with the College of Physicians, it may acquire the powers and privileges of a medical university to grant degrees. And, lastly, the Council has been freely and openly referred to by the managers of the Association for promoting a Teaching University for London as a suitable and proper body to form one of the principal factors of a medical faculty. These contingencies only emphasise the urgent and imperative necessity of a reform of the constitution of the College by a large and intelligent extension of the representative principle, without which the Council can neither secure the confidence of the profession nor the right to speak in its name. It was a consideration of these facts, domestic and foreign, that led me to move the following resolution, which was adopted at a general meeting of the Association of Fellows last May (THE LANCET, May 23rd, p. 963)—namely, "That it would conduce to the welfare of the Royal College of Surgeons, and would tend to promote the interests of medical polity and education, if Members of the College were empowered to take part in the election of members of the Council, provided, first, that no Member shall be eligible to vote until he have been such Member for at least ten years; and second, that the number of members of the Council elected by the Members of the College shall not exceed one-third of the whole Council."

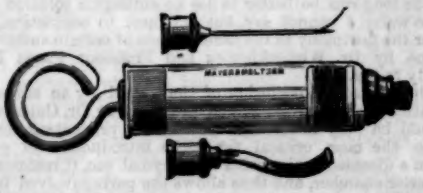
I am, Sir, yours truly,

Harley-street, W., Feb. 1886. J. TWEEDY.

INJECTION OR IRRIGATION IN THE EXTRACTION OF CATARACT; ANTISEPTICS; THE PRESENT POSITION OF THE QUESTION.

To the Editor of THE LANCET.

SIR,—My attention has been drawn by a *confrère* to an article in the number of November, 1885, of the *Klinische Monatsblätter fur Augenheilkunde*, by Dr. B. Wicherkiewiez, entitled "Ueber ein neues Verfahren unreife Staare zu operiren nebst Beitrag zur Augen-antiseptik." The method is practically the same as that introduced by me and advocated in my address on "The Treatment of Immature Cataract" to the Ophthalmological Section of the British Medical Association in Belfast in July, 1884. He removes cortex remaining after expulsion of the nucleus by irrigation with a solution of boracic acid of from 1 to 2 per cent.



strength and of a temperature of 30° C. (86° F.), by means of a bottle with a suitable terminal for introduction within the eye. I used likewise an irrigation bottle with terminal, which I exhibited at the meeting, the fluid I employed being distilled water of about the temperature of the body. He states he has operated on nineteen cases with satisfactory results.

I discarded the irrigation or gravitation bottle, and adopted definitely the method of injection by a scoop-syringe, made for me by Messrs. Mayer and Meltzer, and of which the accompanying woodcut gives a fair representation. This method and its advantages I described in detail at a meeting of the Ophthalmological Society of Great Britain

and Ireland on October 15th, 1885. (For summary, see THE LANCET, October 24th, 1885.)

Professor Panas of Paris has lately contributed on the subject, as appears by a letter and a communication from your Paris correspondent, both of which appear in your issue of January 16th. The substance of the letter and correspondence is such, however, as to call for remark. Prominence is given to antisepticism, and the injection is only referred to as a means of introducing the antiseptic within the eye. Not a word is said about the object of the injection being to remove cortex. Professor Panas is too able a surgeon to claim for antiseptics all the advantages put forward. It may be good, and it is a distinct addition to our knowledge that we may without risk inject into the eye a solution of 1 part of biniodide of mercury and 20 parts of 90 per cent. alcohol in 20,000 parts of distilled water. The important matter is, however, that by injection within the eye cortex is easily removed, and that cardinal fact must not be put aside by the secondary question of whether pure water or water containing some antiseptic should be used for injection. I hope soon to have the pleasure and advantage of reading Professor Panas' paper, which I have no doubt, judging from the reputation of the author, is a valuable contribution to the subject; but meantime I think it right to put the question in its proper bearing.

I venture to state my conviction, based on a review of my operative experience of the last fifteen years, that the injection, whether of water pure or medicated with suitable antiseptics, to clear out cortex will be found so advantageous as to secure very quickly its general adoption. The advantages are many: a rapid clearing out of the cortex, the removal of cortex, which friction through the lids, pressure, and scoop could not effect; the removal of cortex concealed by the iris; the clearing of the wound and detection of tags of capsule; the diminution of the percentage of loss of vitreous; the shortening of the duration of the operation; less teasing and irritation; less iritis and irido-choroiditis from remnants left in the eye; less regard to maturity, cataracts being mature for the injection operation when immature for others. If the section is large enough for easy expulsion of nucleus, there is no fear about getting out cortex whether the section be large or small, or whether aqueous be freely secreted or not. It is applicable, too, to all sorts of incisions large enough to admit easily the scoop, but I think as a general rule iridectomy should be performed.

With all these advantages we should have less panophthalmitis, suppuration of the cornea, slow healing, iritis, and other accidents after operation. Suppuration and other inflammations in eye surgery depend largely on the amount of traumatism and retention of cortex. We must not ignore, however, the occasional evil influence of septic germs, and I think ophthalmic surgeons are agreed as to the advisability of using antiseptic precautions and antiseptic treatment as far as practicable.

I have used the irrigation method about thirty times and the injection by the scoop-syringe forty-six times. The fluid used—distilled water previously boiled—has not caused panophthalmitis in a single instance. As to whether it may in the long run be better to use an antiseptic solution than pure water I cannot say, but am open to conviction, and after the testimony to the harmlessness of certain antiseptics borne by Dr. Wicherkiewicz and Professor Panas I am ready to try.

The immediate occlusion of the wound by an antiseptic gelatine plaster, proposed and practised by Dr. Galezowski, should be very advantageous. Besides preventing for the time—the most critical time—the introduction of germs from a diseased conjunctiva or lacrymal sac, it restores the anterior chamber, and thus allows the parts involved in the operation to come more quickly into natural relation. With the restoration of the chamber, the capsule is separated from the corneal wound, the capsule, iris, and cornea are no longer in apposition, and internal congestion from the diminution of the contents of the eyeball prevented or lessened. If it be found effectual in promoting early healing of the wound, I anticipate less adhesions of capsule and iris to wound and less internal inflammation.

Whilst ophthalmic surgeons should spare no effort to banish panophthalmitis, it is well to bear in mind that the losses from that inflammation (from 1 to 2 per cent.) are very much less than from iritis and irido-choroiditis, about which we do not write or talk so much.—Yours truly,

Belfast, Jan. 18th, 1886. WILLIAM A. MCKEOWN.

SOUTH AFRICA AS A RESIDENCE FOR CONSUMPTIVES.

To the Editor of THE LANCET.

SIR,—I have just received the following letter from an old friend who left England seven years ago with symptoms of advanced phthisis in both lungs, even to a greater extent than he himself describes; and as it contains some most instructive information for any patients who are suffering from phthisis and wish to go abroad, I have ventured to ask you to publish it *in extenso*, omitting only the personal details. Few doctors or patients appreciate that the up-country districts of South Africa can be so easily reached and have such good accommodation. I might add that Dr. Woolby who was recently drowned while bathing, also derived much benefit from living in a similar climate and following practically a similar plan of life, at Engcobo, in another inland district of South Africa.—Yours faithfully,

JOHN CURNOW, M.D.

George-street, Hanover-square, Feb. 9th, 1886.

The Convalescent House, West Barkly, Griqualand West, South Africa, Nov. 8th, 1885.

MY DEAR DR. CURNOW,—You will probably be surprised to hear from your old demonstrator and prosector after seven years' of silence. You must think, unless you have come across my name, once or twice mentioned in THE LANCET during the last few years, that I have long ago joined the "great majority." Nevertheless, you will be glad to hear, I know, that I am in the land of the living yet, and, what is more, that I am in the enjoyment of very good—I may say, robust—health. You may remember that when I last had the pleasure of seeing you in London, when I took my final departure for this country, I was particularly ill—a cavity in my right lung, consolidation of the top of the other, combined with profuse and almost daily hæmoptysis, had reduced me to the most miserable condition. I came out here. During the voyage I was more or less ill. No hæmoptysis, but the cough and my general condition were bad. I stayed in Capetown about three weeks; it was cold and wet there, and it did not agree with me. I started to get higher up the country, and arrived in Kimberley, the capital of the diamond fields, 600 miles in the interior. There I commenced practice, and soon made a decent living. Those were good days then: few doctors and big fees. I was there six months, but the dust of the mines in those days, combined with the worry of a general practice in a large town, was not altogether suited to me. I was anything but strong. At the end of six months, my predecessor in Barkly having made what he considered a small "pile," retired and offered his practice to me. I took it and have been here ever since, more or less contented with my lot; more contented than otherwise, for the out-door country life in a splendid climate (for lungs) has made me a different individual with regard to health. I can now stand "knocking about" with most men. I can do fifty and sixty miles, and have done them frequently in a day, in the saddle. I am the Government or district surgeon of the Barkly division, about the size of a small English county, a justice of the peace for the division, and the only private practitioner. There are over twenty medical men in Kimberley, twenty-five miles off, if I should require a consultation. The town of Barkly, containing about 500 inhabitants, white and coloured, is situated on a high bank overlooking the Vaal river. The river, next to the Orange, the largest in South Africa, is a very pretty one, the banks being well lined with trees. It reminds me in some parts of its course of the Wye at home. There is plenty of fishing, bathing, boating, and shooting to be had in and on it. Most of the hills or "Koptjes" adjoining its banks contain diamonds, some of them of the most beautiful water. There is still a considerable number of diggers digging for diamonds on the Vaal, and in it when the water is low. But unless luck attends one, digging-life on the Vaal is a rather precarious existence. The climate is dry, too dry for most things but lungs. November, December, and January are very hot months—96°-98° in the shade while the sun is up; but amends is made even then by the evenings and mornings being fresh and cool. After January it begins to get cooler in the daytime each month. May, June, and July are delightful months; get frost at night; can be out all night and day.

August, September, and October are warmer but very pleasant months. But whatever the month be, the nights are cool after the hottest day, and permit of sleep. Winter nights are cold enough to make one enjoy a fire, and a big one too. We are 5000 feet above the sea. Both this district and Kimberley abound with people who tell us that they came out for "their lungs," although to look at them you would seldom guess it. They tell pitiable tales of their sufferings at home, and the helpless state in which they arrived here. They tell us that they have been so many years in the country, and that they have quite recovered. I know bankers, merchants, diggers, policemen, and all sorts and conditions of men, now well in health and doing more or less well in their businesses, who came out consumptive. I have often thought of writing to you to try and point out the advantages this part of South Africa offers to consumptives. Up to the present time, however, the difficulty of getting here was great. It was expensive, tedious, and trying to a sick person. Now this is altered. After a passage in a magnificent mail boat to Capetown, the invalid can get into a Pullman car and travel 600 miles into a splendid station in Kimberley in thirty-six hours. A coach and four will bring him down to Barkly in three hours, along a good road, if he wishes. Very different thing to the days when poor Harry Leach wrote of travelling in these parts, in an old wine-case on wheels, called a post-cart. I think the shaking he got during his hasty travels in these parts did much to shorten his days. When I came up from Capetown to Kimberley in 1878 it took me twenty-one days in a mule waggon, and a very rough time it was, in a broiling sun, through the hot sand of the desert Karroo. Now the mail trains from Capetown and Port Elizabeth rush daily into Kimberley. In 1878 the people of Kimberley lived in tin and canvas houses or huts, horribly hot and uncomfortable. Vegetables, fruit, butter, &c., were luxuries we seldom came across. I have known the humble cabbages sell for 10*s.* 6*d.* a-piece on the market, other vegetables in proportion. The late Anthony Trollope, who visited Kimberley in 1878, shook the dust from his feet and departed a sadder if a wiser man. He gave a sad description of us in his next published work. Now all things are altered. A waterworks company pumps an unlimited supply of water from the Vaal River for the use of the Kimberley people; trees and gardens are springing up all round; unlimited fruit and vegetables are brought up daily by train; people have built large and commodious houses; the town is lit by electric light; we boast of a club that costs the members some £25,000—by far the best club in the colony. In short, Kimberley is not such a bad place to live in now, but it is not exactly a good place for an invalid with "lungs"; there is still too much dust from the mines to suit irritable respiratory organs. Barkly, on the other hand, is free from dust; it is within easy distance (twenty-five miles) of the railway station, and is blessed with a fine river, which affords a means of much recreation. Further, it is very healthy in a fever and zymotic disease point of view. My business therein is "nil." Children only trouble me when they come into the world, when they cut their teeth, and when they do little things they ought not to do and suffer the consequences, riding papa's untamed steed, and getting "bucked off" with broken bones for example, or teasing the patient, and getting a dig in the ribs for their pains, &c. In Kimberley, on the other hand, the sanitary arrangements used to be shocking, consequently there was much fever. There was no railway to the sea then. Many of the fever people came down here; now most of the patients go to the sea-coast to "pick up." I live in a by no means uncomfortable house: it is a Government building, built of stone. Cool in summer and warm in winter, with good large lofty rooms, it stands about fifty yards from the river and about a quarter of a mile out of the village of West Barkly. There are eight or ten acres of unoccupied ground all round the place. I keep a sort of cross between a hospital and a convalescent home in it, that is, I have to take in acute cases, accidents, &c., from among the white population of the district, while at the same time I take in as many convalescents as possible. Last year we took in sixty-nine during the year. The Government give a grant towards maintaining two free patients; the rest are paying patients, who pay 12*s.* 6*d.* per diem, exclusive of wines and extras. If the patient is not in a hopeless state when he arrives here, he could almost be guaranteed a cure by simple residence, without drugs or oil or confinement; simply by fresh dry air night and day. A patient should stay here at least twelve months, longer if possible. It took me two years to quite get rid of my cough and every vestige of expectoration, but twelve months made me quite a different man. A male patient from twelve to fourteen years of age upwards would have the best chance of getting rapidly well here. I am sure riding and driving are of invaluable assistance in aiding the damaged lungs to recover. We get an English mail and papers every week, and can obtain any amount of books from the Kimberley Public Library. There is shooting for those who can shoot. There is good coursing after buck and hare. I get good fun coursing during the winter. With regard to children, if strong enough it could be arranged for them to go on with their education for a few hours every day. There is an English church and rector (wife and family) here; a civil commissioner and magistrate, and a number of officials. Ladies from England would probably find it rather dull, as there would not be the same facilities for occupying their spare time as there are for men. The ladies here are, however, pretty active at lawn tennis, and manage generally to amuse themselves without much complaint. Patients, as a rule, have not been sent far enough up country by doctors at home. Our old family doctor in England, hearing that I was still alive, some years ago sent four patients out in consumption. They all stayed within 200 miles of the coast, where the climate is given to much rain, and consequently the air is moist, hot, and enervating; they all died. If they had come to this almost rainless part of the world I believe they might all have got better. Saloon fare to Capetown, £35; railway fare to Kimberley, first-class, £6 6*s.* I am afraid I have bored you with this disjointed letter. I commenced it in November last, and came across it again to-day, Jan. 10th, 1886. I will only point out in a condensed form what is hardly yet known to physicians in London—viz.: 1. That consumptive patients can now travel up to the driest part of the Cape Colony in the most comfortable manner. 2. That, having arrived there, they can obtain fairly comfortable and well-appointed quarters to reside in.—Believe me, ever yours sincerely,

Dr. John Curnow, London. W. R. HARRHY, M.R.C.S.

THE TREATMENT OF PERTUSSIS.

To the Editor of THE LANCET.

SIR,—At the time of writing my letter about the treatment of whooping-cough, I was not aware that carbolic acid had ever been given internally for that complaint, although I was cognisant of the fact that it had been frequently used as a remedy by inhalation; but this method, although of some use, I had never considered capable of neutralising or destroying the exciting cause of the disease, which, in my opinion, does not originate and multiply in the respiratory tract, in spite of the symptoms being mainly manifested there, but at some point in the *primæ viæ*. That this is a fact is fully proved by the result of the treatment adopted. I can account for not having seen Mr. Harries' communication of July 13th, 1878, as at that time I was travelling in the Pacific Ocean (quite a misnomer, by the bye), and my opportunities of perusing THE LANCET, I regret to say, were few and far between. I would like to add that the more I see of the effects of different kinds of treatment in disease, the greater I am impressed with the importance of prescribing antiseptics, especially in the zymotic varieties; for instance, without laying any claim to originality, I always prescribe eucalyptus globulus in rötheln, chlorine in scarlatina and diphtheria, and carbolic acid in typhoid, with the most satisfactory results. I am, Sir, yours obediently,

Bournemouth, Jan. 23rd, 1886. F. W. CORY.

To the Editor of THE LANCET.

SIR,—In the year 1883 I wrote an essay, as a competitor for the Fothergillian Gold Medal of the Medical Society of London, on the Pathology and Treatment of Whooping-cough, in which I gave the results of my investigations and study of this disease, which I had been pursuing for two years previously. They were, briefly, that it is a specific disease, affecting the blood, but having the bronchial mucous membrane as its chief seat, the specific organism developing there, and infecting the blood from thence. In this view I was supported by Mr. T. Dolan. In

the paper so prepared by me I held that the only rational treatment could be local antiseptics, and recommended the use of vaporised carbolic acid. I gave in illustration some picked cases, taken from a list of more than one hundred, which had been successfully treated by this means. I do not wish to claim any priority, but simply to state facts, as above.

Yours, &c.,

Crawshawbooth, Manchester. J. L. KERR, M.B., C.M.

ASSOCIATION OF MEMBERS OF THE ROYAL COLLEGE OF SURGEONS.

To the Editor of THE LANCET.

SIR,—I enclose a copy of a circular and petition which we are issuing to the Members of the College. May we hope for its insertion in your journal? With many thanks for the valuable aid you have hitherto given us,

I am, Sir, your obedient servant,

WM. ASHTON ELLIS, Hon. Sec.

Western Dispensary, Westminster, Feb. 5th, 1886.

The following is the petition referred to:—

To the Queen's Most Excellent Majesty in Council.

The humble petition of the Members of the Royal College of Surgeons of England sheweth: That whereas a petition has been prepared for presentation by the President and Council of the Royal College of Surgeons of England, praying for a supplemental Charter, or alterations in the existing Charters previously granted to the said Royal College, your humble petitioners approach your Most Gracious Majesty respectfully to point out that by the present Charters the Members of the said College (who are in proportion to the Fellows as 14 to 1) have no status of any kind in connexion with the governing body.

Your petitioners most humbly submit that it would be both equitable and politic that the Members should have a voice in the conduct of a corporation of which they are, and always have been, numerically and financially the mainstay. At present the Council, elected by the twelve hundred Fellows only, deals absolutely with the interests, property, and moneys of the College, whilst sixteen thousand Members are wholly unrepresented.

Your petitioners do, therefore, most earnestly pray that before granting any Charter or supplemental Charter to the said Royal College, the present position of your petitioners may receive your Majesty's gracious consideration for such provisions as will create and secure for the Members (who so largely contribute to the prestige and welfare of the said College) the right of representation and other privileges which should belong to the members of a corporate body; further that an inquiry may be instituted into the constitution of the Council, the management of the College, the conduct of examinations, and the expenditure of the College funds.

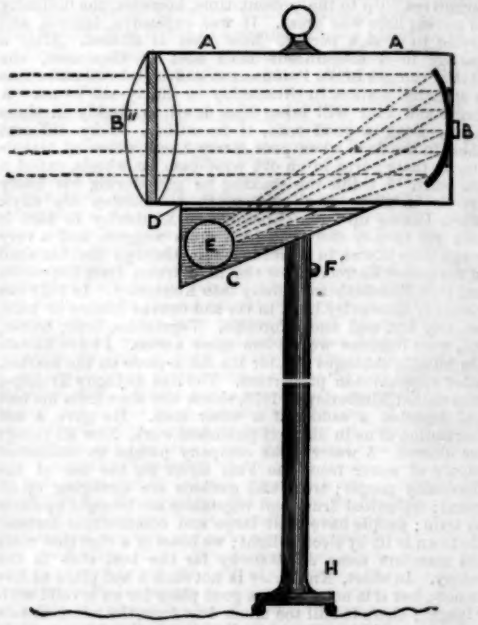
Finally, your petitioners very humbly pray that in the event of no petition for a supplementary Charter or otherwise being presented by the Council of your Royal College, your Majesty may be graciously pleased, in your wisdom, equity, and discretion, to sanction and provide for certain alterations being made in the present existing Charter so that it may contain such provisions as are hereinafter mentioned:—1. That all Members of a certain number of years' standing, to be determined by your Gracious Majesty, may, after having been registered, conjointly with Fellows, exercise the privilege of electing the Council. 2. That a certain proportion of the Council may consist of Members. 3. That the period of office of members of the Council be considerably shortened. 4. That Members and Fellows be permitted to vote by voting papers. 5. That no fees of any kind be paid to any College fund by Fellows or Members on their election to office. 6. That the Council prepare a yearly report, together with an account of income and expenditure of the College funds duly audited by a public accountant, which after its submission for approval to the Fellows and Members (annually summoned for this purpose by the President of the College) shall, on adoption, be required to be published in the medical journals. 7. That enlarged power may be given to the Council to suspend or revoke the licence of any Fellow or Member on proof of discreditable conduct, whether professional or otherwise.

And your petitioners, as in duty bound, will ever pray, &c.

APPLICATION OF THE ELECTRIC LIGHT TO THE OPHTHALMOSCOPE.

To the Editor of THE LANCET.

SIR,—I was much interested in reading a description of Dr. Davidson's application of the electric light to the ophthalmoscope, because I had absolutely in preparation for your columns the description of an instrument which Mr. Robson, an optician of this city, is constructing for me with the same object, and which he has had in his hands for some time. As I think my instrument has some advantages over Dr. Davidson's, I send you a drawing of it, together with a description. It consists of a short tube, blackened in the interior, of telescopic construction, so that it may be elongated and contracted within certain



limits (A A). At one end (B) is a mirror of short focus, movable in its vertical diameter by a small screw. The aperture (B'') at the other extremity of the tube may be closed by tinted glasses or a bull's-eye lens. In a small triangular chamber below the tube is situated the small incandescent lamp (E), the brilliancy of the illumination from which can be moderated by inserting tinted glasses through a slit at D. The mode of action of the instrument is made obvious by the diagram. The wires pass up the handle, and electric contact is made by the button (F) when the instrument is in use. Ophthalmoscopic examinations may be made with this instrument in the daytime, by the direct method, without darkening the room. The lamp can be used for all ordinary purposes by screwing on a stand at H, and inserting a condensing lens at B''. The drawing shows the instrument a little larger than its actual size.

I am, Sir, your obedient servant,

CHRISTOPHER S. JEAFFRESON.

Saville-row, Newcastle-on-Tyne, Feb. 9th, 1886.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

NEWCASTLE LYING-IN HOSPITAL.

THE annual meeting of this useful institution was recently held, Dr. Gibson presiding. The medical officer's report showed a considerable increase in the number of patients admitted over the previous year. Including out-patients, 268 cases had been admitted, and no death had occurred.

The committee's report showed the hospital, which is a very old building, to be insanitary in many respects. A most interesting discussion took place as to the advisability of endeavouring to raise funds to build a new Maternity Hospital, with all modern improvements. It was finally decided, however, to repair the sanitary defects of the present building, and to further the scheme for erecting a new hospital. The public would no doubt make a hearty response to a call of this nature, for while the poorer population has very much increased, so also has the necessity for aid of this nature to mothers. The present accommodation is miserably deficient.

TYNEMOUTH INFIRMARY.

The scheme for providing an infirmary in the borough of Tynemouth, which includes the important town of North Shields, is making progress. A public meeting has been held, at which it was resolved that, as in June, 1887, Her Majesty will have attained the fiftieth year of her reign, preliminary arrangements be made for laying the foundation-stone of the Borough of Tynemouth Victoria Jubilee Infirmary. It was also agreed to ask the Duke of Northumberland, who is the principal land proprietor, to grant a site for the proposed building.

ELSWICK AMBULANCE CLASSES.

The great ordnance and shipbuilding firm of Sir Wm. Armstrong and Co., at Elswick, in this city, about three years ago instituted some ambulance instruction classes, which have proved to be of a highly useful and practical character, and of great benefit to their workmen. Dr. R. Clark Newton has commenced a course of lectures for the present session, and the examinations passed showed much intelligence on the part of the workmen, and reflected great credit on their instructor. Every ambulance student kept a record of the accidents attended by him during the year, and it was shown that thirty-five accidents had been attended by one man alone. It was stated at the late meeting in furtherance of the ambulance classes that 428 accidents had occurred at the works of sufficient gravity to lay the sufferers on the compensation fund, while a great number of minor accidents had taken place not necessitating help from it.

SMALL-POX IN DURHAM COUNTY.

A rather serious outbreak of small-pox has taken place at the mining and manufacturing village of Birtley, near Chester-le-Street. The cases are reported to be numerous, and some deaths have taken place. An outbreak of small-pox in the winter in a colliery district is always regarded as unfortunate, for the habits of the people favour the spread of the disease, perhaps more than in the warm weather, when thorough disinfection and isolation can be better carried out.

POISONING BY PHOSPHORUS.

Another case of phosphorus-poisoning by lucifer matches has been admitted into the infirmary, the patient this time being a married woman, who has suffered severely from drinking an infusion of lucifer matches; she is, however, likely to recover. This, I believe, makes the eighth or ninth case since this mania or epidemic first manifested itself in the north.

Newcastle-on-Tyne, Feb. 1st, 1886.

EDINBURGH.

(From our own Correspondent.)

THE LORD RECTORSHIP OF EDINBURGH UNIVERSITY.

IN the autumn of the present year the office of Lord Rector of the University will fall vacant, Lord Iddesleigh's three years' term of office having then come to an end. The office is awarded in accordance with the majority of votes given by matriculated students to the various candidates who may become competitors for the honour. In reply to an inquiry addressed to him by the Committee of the Conservative Association of the University, Lord Iddesleigh has intimated his willingness to become a candidate again should this meet the desire of the students. At a meeting of Conservative students to which this communication was made, a formal motion adopting Lord Iddesleigh as the Conservative candidate for the next election was submitted and carried unanimously. No Liberal candidate has at this early date been announced, but it is certain that a suitable name will be forthcoming within the next few months, as the Liberal students have become a much more organised party since their defeat in 1883, and are now prepared to carry on a most active contest with a very fair chance of success.

THE CHAIR OF PHYSIOLOGY IN ABERDEEN.

It is announced that two Edinburgh graduates are likely to become candidates for the Chair of the Institutes of Medicine in the University of Aberdeen, which will shortly become vacant through the translation of Professor Stirling to the corresponding Chair in the Victoria University, Manchester. Mr. H. Ashdown has acted for some years as assistant to the Professor of Physiology, and is Senior Demonstrator of Physiology in the University of Edinburgh, having previously held the post of Demonstrator of Anatomy in the University under Professor Turner. He has been for some time engaged in conducting and directing physiological and histological researches in the physiological laboratories of the University. Dr. D. Noël-Paton is also spoken of as a candidate; he holds a research fellowship from the University, and has contributed some interesting observations upon urea formation to the literature of the chemical metabolism of living tissues; he is also the author of other papers upon medical and physiological topics.

THE QUESTION OF CAP AND GOWN FOR UNDERGRADUATES.

Some months ago the Students' Representative Council, by means of a plebiscite, attempted to ascertain the views of the students generally in regard to the propriety of adopting academic costume. Although a majority of the undergraduates, who voted were in favour of the proposed change, the result was not satisfactory, as only a little over a third of the total number of matriculated students expressed any opinion in the matter. The question was referred to the Senatus Academicus, who have decided that it is not expedient to interfere with the existing usage; a decision specially important for students of the Medical Faculty, to whom the special academic garb would have proved very irksome in many respects, especially during the period of their more advanced studies, of which clinical and dispensary work forms so important a part.

EDINBURGH HEALTH SOCIETY.

Last Saturday a somewhat unique demonstration was given to the public under the auspices of this Society. In the presence of a large audience, presided over by Dr. Byrom Bramwell, a practical demonstration of sick-room cookery was carried out by ladies of the Edinburgh School of Cookery and Domestic Economy. A lecture from the pen of Miss Guthrie Wright was read, in which the principles involved were ably discussed, a number of practical illustrations detailed, and several useful recipes enumerated. During the lecture these illustrations were actually put into practice before the eyes of the audience, and the products submitted to the judgment of a committee. A great element of usefulness in the demonstration was the fact that as far as possible the utmost simplicity was observed not only in the choice of materials but in the methods of preparing them; so that in both respects a lesson was conveyed which would be applicable to the requirements of all classes of the community.

Edinburgh, Feb. 9th.

IRELAND.

(From our own Correspondent.)

IRISH LUNATIC ASYLUMS.

THE annual report of the District, Criminal, and Private Lunatic Asylums in Ireland for 1884 was only issued last week, although the report of the inspectors is dated Aug. 7th, 1885. The cause of this delay requires some explanation from those concerned in the matter, as the report is in consequence rendered almost valueless. Setting down the population of Ireland at 5,000,000, and dealing with recognised statistical facts, the inspectors assume that about 1 individual in every 350 is more or less mentally affected, and that actual lunatics, or those who at one period of life possessed clear reasoning powers, may be approximately set down at 1 in every 450, the difference for the most part being constituted of epileptics, idiots, and congenital imbeciles. In regard to this calculation, however, it should be borne in mind that a normal pro-

portion of the sane to the insane has been impaired within the past few decades by an emigration of about 1,500,000 of the healthiest of the inhabitants of this country, a fact illustrated by the present residence in poor-houses of no less than 3775 labouring under some form of mental disease, independent of the aged, infirm, and physically prostrate. Contrasting the relative population of England and Wales with that of Ireland, and the proportion of insanity as recognisable from statistics in both countries, their position appears to be analogous. England and Wales, with a population of 27,500,000, had 79,700 lunatics; while Ireland, with a population of 5,000,000, had 14,288 registered insane, or about 1 to 348. Of the 9687 patients in the district asylums, with reference to probable or possible curability, 7399 are recorded as hopeless cases, and 2288 as admitting of amelioration, if not of actual recovery.

HEALTH OF BELFAST DURING 1885.

The general death-rate has been higher than in the two preceding years, as was also the mortality from zymotic and lung affections. It was this latter increase which has so materially added to the general death-rate in this urban sanitary district. The epidemic of measles which prevailed, especially in the second quarter of the year and also in the other quarters, was very severe; and the changeable and severe weather of the spring caused many deaths from diseases of the respiratory organs and phthisis. It is, however, satisfactory to note that there has not been a single death from small-pox in the Belfast district for two years, and that typhus fever has caused fewer deaths than in either 1883 or 1884. Scarlatina has also shown a smaller mortality than in these years; indeed, had it not been for the fatal epidemic of measles the death-rate from all zymotic diseases would have been very low; but measles alone gave a rate of 2·70 out of a total of 5·3.

CITY OF DUBLIN HOSPITAL.

A fancy fair and carnival was held at the Artisans' Exhibition last week, on behalf of the City of Dublin Hospital. The attractions for the public were so many, and so well worth visiting, that enormous crowds attended on the several days the bazaar was held, and a very large sum of money was obtained for a most deserving charity.

Dr. Rawdon Macnamara has been re-elected the representative of the Royal College of Surgeons in Ireland on the General Medical Council for the ensuing year.

Sir Charles Cameron, President of the Royal College of Surgeons, who had been indisposed for some time past, is now, I am glad to state, thoroughly recovered, and is able to resume his official and professional duties.

Dublin, Feb. 9th, 1886.

PARIS.

(*From our own Correspondent.*)

PTOMAINES AND THE MICROBE THEORY.

THE discovery by M. Gautier of the part played by ptomaines and leucomaines in the pathogeny of disease is a terrible blow to the microbian theory, as in a paper communicated by the author to the Academy of Medicine it has been demonstrated that the non-elimination from the body of dead animal matter is the only source of all human ailments. Professor Peter has always been vehemently opposed to the bacillary theory of the etiology of disease, and looks upon the discovery of ptomaines and leucomaines as a new era in medicine. Although he himself had long ago foreseen the existence of such elements as causes of disease, it was left to M. Gautier, the eminent chemist, to formulate his theories in a more scientific manner. This new theory formed the basis of a very interesting paper read by Professor Peter at the Academy of Medicine last week, in which he makes out that this new theory of auto-infection is quite compatible with clinical observation, whereas the microbian theory is so shrouded in mystery that Koch himself had been induced to considerably alter his opinions respecting the *rôle* of the comma bacillus in the development of cholera, and now declares that the disease is caused by a ptomaine secreted by a bacillus. In concluding his paper Professor Peter made the following remarks: "M. Gautier has shown that in the dead body, and even in the living, ptomaines are formed; these alkaloids, ptomaines or leucomaines, are absolutely toxic; an auto-infection characterised by hyperthermia is the result. This theory rids us, at least for a time, of the tyranny of the microbes. If urea, which is an alkali, is constantly formed in our organism, why should there not also be formed an alkaloid in it? It is only a question of degree. Life is a contingent phenomenon; it is a series of partial deaths. It may therefore be said that we carry in ourselves while living a portion of our own corpse, but we resist the work of auto-infection by two distinct mechanisms: the elimination of the toxic substance and its destruction by oxygen. We should no longer hesitate between the parasitic doctrines, which are shrouded in dark hypotheses, and this new doctrine, which is as luminous as it is precise, which explains the phenomena of normal and abnormal life."

STATUE TO CLAUDE BERNARD.

A statue, erected to the memory of Claude Bernard, the eminent physiologist, was unveiled on Sunday last, in the presence of the Minister of Public Instruction, delegates from the Institute and University of France, amongst whom were also present MM. Paul Bert, Pasteur, Renan, and other scientific and literary men. The statue is of bronze, and considered a very good likeness, representing Claude Bernard in a pensive mood, as he was often seen in his laboratory, while he was meditating over a new problem from which he had not yet formed any positive deductions. The statue is placed at the top of the large staircase leading to the College of France, where he had worked in the laboratory for more than forty years. On one side of the pedestal is inscribed his name, with the statement that the monument was erected by his colleagues, his friends, and his disciples. Over the different emblems on the other parts of the pedestal are to be seen the names of the principal discoveries which will for ever be associated with the name of Claude Bernard: glycogeny, diabetes, vaso-motor nerves, digestive liquids, experimental medicine, general physiology, unity of life, determinism, &c. Many interesting speeches were made on the occasion, the principal of which was that of Paul Bert, one of the most intimate friends and pupils of Claude Bernard, in which, in a few neat phrases, he paid a just tribute to the memory of his former master.

Paris, Feb. 9th, 1886.

ROYAL COLLEGE OF SURGEONS.

AT an ordinary meeting of the Council of the above College, held on Thursday, the 11th inst., the report of the Building Committee of the two Colleges, the Royal College of Surgeons and the Royal College of Physicians, in reference to building on the Savoy Estate, was presented. It was approved and adopted, and authority was given to the Building Committee to make the necessary arrangements for the ceremony of laying the foundation stone. The letter from the Committee of the Association of Fellows, signed by the hon. sec., Mr. Bruce Clarke, in reference to the proposition to elect fifty Fellows yearly without examination, was read. Mr. George Robert Wyatt, of Tulse Hill, was elected a Fellow of the College.

Obituary.

JAMES BALLS WOOLBY, M.B.LOND.

MR. WOOLBY, who was accidentally drowned whilst bathing on January 1st at Groot river, Cape Colony, was a native of Halesworth in Suffolk, and received his medical education at King's College, where he entered in October, 1875. In 1876 he obtained a junior scholarship; in 1877 he passed the Intermediate M.B. Examination at the London University, taking honours in Materia Medica; in 1878 was prizeman at King's College in Forensic Medicine, Obstetrics, and Pathology, and in 1879 was elected an Associate of the College. Just as a brilliant career was opening before him his health began to fail, and an attack of hæmoptysis, accompanied by other signs of chest mischief, alarmed his friends, especially as his family history on the maternal side showed a strong tendency to consumption. He therefore took the L.R.C.P.Lond. in 1879, and after a voyage or two to the Cape, stayed in South Africa for the next two years, with

great benefit to his health. He returned in 1882 and passed the Second M.B. Examination. He was appointed physician's assistant and afterwards assistant house-surgeon, to the Bristol General Hospital, and became a M.R.C.S.Eng. in January, 1884. He was then elected resident medical officer to Queen Charlotte's Lying-in Hospital, and may be said to have been the first who systematically and thoroughly carried out the principles and practice of antiseptic surgery in that institution, with the remarkable results described by Dr. Priestley recently at the Obstetrical Society. His devotion to the duties of this hospital, the fatigue attendant on night-work, and an attempt at the same time to read for his M.D. degree, again told seriously on his health, and symptoms of rapid phthisis (high temperature, night sweats, slight hæmoptysis, and râles over the upper part of both lungs) presented themselves. He again left for South Africa, taking the medical charge of a mission-station at Engcobo, Tembuland, and had improved greatly in health and was rapidly increasing in weight, so that when he last wrote to his friends in England he spoke in the most reassuring manner as having practically recovered, and as being about to start on a hunting expedition. The news of his accidental death came as a great shock, and the regret at so early and sad a termination to his career can scarcely be expressed. Besides his medical knowledge, Mr. Woolby had much literary culture; and his unassuming manner, gentle disposition, obliging friendliness, and self-sacrificing devotion to duty will be long remembered by all with whom he came in contact.

R. ROBERT MADDEN, F.R.C.S.

ON the 5th inst., at Booterstown, near Dublin, the death occurred of Mr. Richard Robert Madden, formerly Colonial Secretary of Western Australia, and Secretary of the Irish Loan Fund. The deceased, who was the youngest of twenty-one children, was born in Dublin, and was admitted a Member of the Royal College of Surgeons of England in 1829, obtaining the Fellowship of that body in 1855. In 1833 he was appointed a special magistrate in Jamaica, and in this capacity he became a friend of the slaves, earning throughout the island the reputation of being their protector and sympathiser, and an ardent colleague of Clarkson, Wilberforce, and Buxton in the movement for the abolition of slavery. The esteem in which he was held by the black population was recognised in 1836 by his appointment as superintendent of liberated Africans at Havannah under the British Colonial Office, and in this post he rendered valuable services to the cause of the slave. Three years later, in 1839, he was appointed Acting Judge Advocate of the Mixed Commission Court under the Foreign Office. So highly did the Home Government regard his services in this capacity that in 1841 Lord John Russell appointed him a Commissioner of Inquiry on the West Coast of Africa, and it was whilst performing the duties of this office that his vigilance unmasked what became known at the time as the "pawn system," which turned out to be slavery in all respects carried on under the very eyes of the British authorities and of the officials entrusted with the protection of the negroes. In 1847 Mr. Madden was appointed Colonial Secretary of Western Australia, a post which he retained for three years until he became Secretary to the Irish Loan Fund. This position he resigned some years ago, and devoted the remainder of his life to literature. Mr. Madden was the author of the following, amongst other, works: Infirmities of Genius; Lives and Times of the United Irishmen; Connexion of England with Ireland; Phantasmata, or Illusions and Fanaticisms; Galileo and the Inquisition; and the Life and Times of Savonarola. The works published by him relating to Ireland were contributions to the study of the Irish question of the period, and may still be referred to with profit. At the time of his decease Mr. Madden was in his eighty-eighth year.

ROYAL PORTSMOUTH, PORTSEA, AND GOSPORT HOSPITAL.—At the annual meeting of the subscribers to this institution on the 9th inst., it was stated that the excess of income over expenditure for the past year was no less than £1723, whilst in addition to this, legacies and special donations amounting to £644 were received. The number of in-patients was 591, and 2247 out-patients received advice. The satisfactory financial state of the hospital is attributed to a canvass made early in 1884 with the object of obtaining increased support for the institution.

Medical News.

UNIVERSITY OF LONDON.—The following candidates have passed the recent Preliminary Scientific (M.B.) Examination:—

ENTIRE EXAMINATION.

FIRST DIVISION.

Clutterbuck, Medwin Caspar, University College, Bristol.
Krohn, Ronald B. S., Univ. Coll. and School, and private tuition.
Lansdown, Charles Ewbank, University College, St. Mary's Hospital, and private tuition.
Mack, Cyril Gordon, St. Mary's Hospital and private tuition.
Macnamara, John Joseph, Univ. Edin. and Univ. Coll., London.
Snell, Sidney Herbert, University College and private tuition.

SECOND DIVISION.

Atwool, William Tillinghast, University College, St. Mary's Hospital, and private study and tuition.
Cole, Robert Henry, St. Mary's Hospital.
Edge, Arthur James, Owens College, St. Bartholomew's Hospital, and private tuition.
Heath, Alan Jasper, Univ. Coll. and private study and tuition.
Murrell, George F., University College, St. Bartholomew's Hospital, and private study.
Paul, John Ernest, University College and private tuition.
Price, Arthur Edward, St. Thomas's Hospital.
Taylor, F. Ryott P., Westminster Hospital and private study.
Thorne, Attwood, St. Mary's Hospital and private tuition.
Worsley, Reginald Carmichael, University College.
Wright, Sydney Faulconer, St. Thomas's Hospital.

At the January Matriculation examination of the University, 104 candidates passed in the Honours division, and 345 and 27 in the first and second divisions respectively. Samuel Arthur King gained the exhibition of £30 per annum for two years; W. T. N. Spivey the exhibition of £20 per annum for two years; and E. G. Hawke the exhibition of £15 per annum for two years.

SOCIETY OF APOTHECARIES.—The following gentleman passed the examination in the Science and Practice of Medicine, and received a certificate to practise, on the 4th inst.:—

Henderson, James Threapland, Wibsey, near Bradford.

On the same day the following passed their Primary Professional Examination:—

Charlesworth, George, Middlesex Hospital.
Mason, Francis John Gorringe, St. Bartholomew's Hospital.

THE annual meeting of the St. Mary's Hospital for the treatment of diseases of women and children, Manchester, was held on the 8th inst.

A MEETING held at Eastbourne on the 5th inst. decided, subject to obtaining the necessary land at a moderate cost, to enlarge the Princess Alice Memorial Hospital.

HER Majesty has forwarded a donation of £100 to the Countess of Dufferin's Fund in support of the National Association for supplying Female Medical Aid to the Women of India.

AT an inquest recently held at Upton on the body of James Hunter Knox, M.B. Glas., whose death was caused by morphia, the jury returned a verdict of suicide whilst temporarily insane.

THE eighteenth annual dinner in aid of the funds of the French Hospital was held on the 6th inst. During the evening subscriptions amounting to about £2000 were announced.

THE committee of management of the Aberdeen Royal Infirmary on the 27th ult. resolved that the treatment of zymotic diseases—except typhoid fever—be discontinued at the earliest practicable date.

A CONFERENCE on the subject of the management of idiots is to be held in Gratz from the 6th to the 8th of August. A conference on the statistics of idiocy has just been held in Pesth.

MEDICAL MAGISTRATES.—The Lord Chancellor has appointed Dr. Douglas A. Reid and Mr. John Griffith Lock, M.A. Cantab., M.R.C.S., to the Commission of the Peace for the Borough of Tenby.

ROYAL FREE HOSPITAL.—The fifty-eighth annual meeting of the governors of this institution was held on the 4th inst. The report of the committee of management showed that the receipts from all sources during the past year amounted to £7656, and the total expenditure to £11,275. During 1885, 1728 in-patients had been admitted, and the daily average of patients in the wards was 135. The number of out-patients under treatment was 21,853.

THE fifth annual meeting of the Sanitary Assurance Association was held on the 8th inst., when a highly satisfactory report was presented by the committee.

VACCINATION GRANTS.—The following gentlemen have received the Government grant for efficient vaccination: Mr. B. J. Lee, North Wingfield District, Chesterfield Union (fourth time), and Mr. P. Butler-Stoney of the Millom District, Bootle Union, Cumberland (fifth time).

DR. JOHN BURNESS, late of Montrose, was drowned last week while crossing Lockgoil in a small boat to visit a patient. The deceased, who was between sixty and seventy years of age, was highly esteemed throughout the district in which he resided.

IN the Swiss Universities there are during the present semester 650 medical students—207 in Zurich, 198 in Berne, 124 in Geneva, and 191 in Basle. Of these, 78 are women. In Berne there are 63 foreign students, of whom 41 are women.

A HAMBURG court of justice has sentenced a medical man to a fine of £15 for "careless damage" to a woman who was suffering from hæmorrhage, and on whom he had employed a "doubtful treatment" without examining her or attempting mechanical treatment.

WINDSOR ROYAL INFIRMARY.—At the recent annual meeting of the subscribers to this institution it was reported that the new ward, replacing the Hibbert Ward, had been completed, and that extensive sanitary works had been carried out and additions made to the furniture of the wards, the whole involving a total extra expenditure of about £1500.

ST. MARK'S HOSPITAL.—The fiftieth annual report of the committee of management of this institution was laid before the governors on the 11th inst. The total receipts amounted during 1885 to £3902, a sum which exceeded the expenditure by £429. During the year 310 in-patients passed through the wards of the hospital, a number much in excess of any previous year.

CONVALESCENT HOME.—A convalescent home for hospitals and the better class of mechanics and small tradespeople has recently been established by a benevolent lady from philanthropic motives on the outskirts of Lewes. The home, which is only for the reception of women and girls over nine years of age, contains six beds, and the weekly charge ranges from five to eight shillings.

CHARING-CROSS HOSPITAL.—The annual court of the governors of this hospital was held on the 10th inst., when the sixty-fifth yearly report was read. It stated that during the past year there were admitted 1584 in-patients and 22,615 out-patients. The total receipts for the year, including legacies, were £2154, as against £4231 for 1884; and the expenditure amounted to £12,775, against £12,663 for the preceding year.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST.—At the annual general meeting of the governors of this institution on the 10th inst., it was reported that the number of in-patients admitted during the year had been 1011, as against 900 in 1884, and the number of out-patients was 15,924, being an excess of 413 over the preceding year. The total receipts were £8133, and the excess of expenditure over income was £1420.

EXPLOSION AT A HOSPITAL.—A serious explosion is reported to have occurred on Wednesday night at the Southport Convalescent Hospital. The heating apparatus was undergoing repair, and the stoker had only a few minutes before left the building, after making up the fire, when the boiler exploded, doing considerable damage. Fortunately, at the time all the patients and officials were in another wing of the building and escaped injury.

MANCHESTER CLINICAL HOSPITAL.—From the medical report which was read at the annual meeting in connexion with this institution on the 8th inst., it appears that the number of patients admitted during 1885, including women and children, was 7108, being an increase of 258 on the previous year. The number of consultations in the out-patient department amounted to 27,877, or 1877 more than in 1884. The expenditure of the hospital is about £300 in excess of the ordinary income.

MEDICO-PSYCHOLOGICAL ASSOCIATION.—At the next quarterly meeting, to be held at Bethlem Hospital, St. George's-road, S.E., on Wednesday, 24th inst., at 4 P.M., Dr. Mickle will read a paper on "Some Abnormal Forms of Breathing." The members of the Association will dine together at the Holborn Restaurant, High Holborn, at 7 P.M.

WESTMINSTER OPHTHALMIC HOSPITAL.—Amongst the cases exhibited at this hospital on the clinical evening, Feb. 5th, were—Albuminuric Retinitis, Syphilitic Hyalitis, Optic Neuritis, Retinal Hæmorrhages, Pigmentary Retinitis, Choroiditis, Myopic Changes in Fundus, Embolism of Arteria Centralis, Detachment of Retina, and Chronic Glaucoma with Cupping of Optic Discs.

HOSPITAL SATURDAY FUND.—Mr. Robert Frewer, secretary of the Hospital Saturday Fund, has just received the following from Henry Lane, Canterbury, New Zealand:—"Sir,—Enclosed is a Bank order for £100 towards the funds of the hospitals. We hear in this far away country of the distress and sickness among the poor in the metropolis, and as an old resident in London I beg you to accept this towards the relief of the distressed."

CITY OF LONDON TRUSS SOCIETY.—The annual general meeting of the governors of this Society was held on the 3rd inst. The total income of the past year from all sources amounted to £5062, and the total expenditure to £5594. The number of patients relieved in 1885 was 9000, bringing up the total number treated since the foundation of the charity in 1807 to 413,316. The annual festival dinner is to be held on the 25th inst., and the Lord Mayor has promised to preside.

OLD STUDENTS' FESTIVAL IN ST. PETERSBURG.—The students who qualified at the St. Petersburg Medico-Chirurgical Academy in 1860 have recently celebrated the twenty-fifth anniversary of their entry into professional life. They not merely commemorated the occasion by a dinner, but they have published a book setting forth the scientific professional work and giving to some extent a series of biographies of the former fellow-students. The figures given are instructive. The number of would-be students who attempted to enter the Academy in 1855 was 600, of whom only 350 were accepted. Of these, 142 qualified in 1860, and at the present time only 96 of these are left, all of whom, it is stated, enjoy a good reputation in medical and scientific circles.

SEWER VENTILATION.—A patent has recently been taken out by Mr. Malvin of Harrogate for a method for exhausting gas from sewers, and for consuming or deodorising and dispersing of such gas. The plan provides for the division of a town's sewers into sections by the fixing of automatic doors. The sections are to be isolated, and each furnished at a suitable spot with a chimney or shaft and a furnace, which shall be as nearly as possible smokeless. An upcast shaft from the sewer is to be connected with the ashpit under the furnace, which is in the form of a cloud chamber. After passing through the fire the gas is conducted to a reservoir, where it encounters a spray of water designed to lay any solid particles which may have been produced by the action of the fire, so as to prevent their emission into the atmospheric air. The sewer gas, after passing through the fire, is taken by the current up the chimney and delivered at a considerable altitude above the street.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

BARKER, WILLIAM J. T., L.R.C.P.Lond., M.R.C.S., has been appointed Medical Officer for the Churchstanton District of the Taunton Union.

BODY, HENRY MARTEN, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer of Health for the Crediton Urban Sanitary District, vice Heygate.

BROWNE, OSWALD, M.A., M.B.Cantab., M.R.C.P., has been appointed Honorary Physician to the St. Marylebone General Dispensary, vice P. M. Chapman, M.D., resigned.

BUIST, J. B., M.D., F.R.C.P.Edin., has been appointed by the Local Government Board a Teacher of Vaccination in Edinburgh, vice J. O. Affleck, M.D., F.R.C.P.Edin., appointed a Physician to the Royal Infirmary.

CARTER, R. BRUDENELL, F.R.C.S., has been appointed Ophthalmic Surgeon to the National Hospital for the Paralysed and Epileptic.

COOPER, JOHN N., M.K.Q.C.P.I., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Fourth District of the Risbridge Union.

GARDNER, HENRY WILLOUGHBY, M.R.C.S., L.R.C.P., has been appointed Junior House-Surgeon to the Liverpool Children's Infirmary, vice R. R. Whishaw, M.B.Cantab.

GUNN, R. MARCUS, F.R.C.S., has been appointed Ophthalmic Surgeon to the National Hospital for the Paralysed and Epileptic.

HORSLEY, VICTOR A. H., M.B., F.R.C.S., has been appointed Surgeon to the National Hospital for the Paralysed and Epileptic.

IRVING, GEORGE B., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Stanmore District of the Hendon Union.

JOHNSON, RAYMOND, M.R.C.S., late House-Physician to University College Hospital, has been appointed Obstetric Assistant to that institution.

LORRAINE, H. J. B., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer for the High District of the Longtown Union.

LUCY, REGINALD H., M.B., C.M.Edin., has been appointed House-Surgeon to the London Hospital, E.

NAYLOR, JOHN H., L.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer for the Fourth District of the North Bierley Union.

NEWCOMBE, FRANK, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Wilsford District of the Sleaford Union.

SALTER, JOHN R., M.B.Lond., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Third District of the Tonbridge Union.

SERJEANT, GEORGE, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer of Health for the Launceston Rural Sanitary District, vice Williams.

SMITH, T. F. HUGH, F.R.C.S., L.S.A.Lond., has been appointed Poor Law Medical Officer and Medical Officer of Health for the Third District of the Dartford Union, vice W. R. Ashurst, M.D., M.R.C.S., resigned.

SUNDERLAND, SEPTIMUS, M.D., L.R.C.P., M.R.C.S., has been appointed Resident Medical Officer to the Chelsea Hospital for Women, Fulham-road, S.W., vice Dr. Simmons, resigned.

WALLIS, A. W., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer to the Temporary School at Harold Court of the St. Leonard (Shoreditch) Parish.

Births, Marriages, and Deaths.

BIRTHS.

BROWN.—On the 26th ult., at Litherland, Penang, the wife of W. Carnegie Brown, M.D., of a daughter (stillborn).

CABLE.—On the 9th inst., at Royal-hill, Greenwich, the wife of G. H. Cable, M.R.C.S., of a son.

CANTLIE.—On the 6th inst., at Suffolk-street, Pall-mall, the wife of James Cantlie, M.A., M.B., F.R.C.S., of a son.

DOBSON.—On the 9th ult., at Bangalore, the wife of Surgeon-Major A. F. Dobson, M.B. (prematurely), of a daughter.

GUINNESS.—On the 3rd inst., at Bampton, North Devon, the wife of T. A. Guinness, M.R.C.S., of a son.

HUME.—On the 20th ult., at Islington, the wife of F. H. Hume, M.R.C.S., of a son.

PENFOLD.—On December 20th, at Sandhurst, Victoria, the wife of Oliver Penfold, M.R.C.S., L.S.A.Lond., of a son.

MARRIAGES.

CAMPBELL—DUMACHIE.—On the 3rd inst., at Glenboig, Lanarkshire, by the Rev. James Morison, D.D.Glas., S. George Campbell, M.B., M.Ch.Edin., M.R.C.S.Eng., of Victoria, co. Natal, to Margaret Wyllie, daughter of James Dumachie, Esq., of Glenboig.

HILLS—FLETCHER.—On the 10th inst., at the Parish Church, Deeping St. Nicholas, Augustus Phillips Hills, M.R.C.S., of Carlton House, Battersea-park, S.W., son of the late George Hills, M.D., F.R.C.S., to Lizzie J. Holland, younger daughter of the late John F. Fletcher, M.R.C.S., and Niece of John W. Holland, of The Shrubbery, Deeping St. Nicholas.

TRAILL—ANDERSON.—On the 4th inst., at Glenburn Hall, Jedburgh, by the Rev. Robert Stewart, B.D., Minister of Jedburgh, assisted by the Rev. John Gordon Smith Napier, M.A., Minister of Kelso, Cecil Grahame Traill, M.B., C.M., Edinburgh, to Mary M'Ghie, eldest daughter of Charles Anderson, Solicitor, of Jedburgh.

TROTT—LEE.—On the 4th inst., at St. Luke's, Headless-cross, Warwickshire, by the Rev. F. Lacon, Rector, Dudley C. Trott, B.A., M.B., B.C.Cantab., of Bermuda, to Florence, youngest daughter of the late James Lee, of Greet House, Birmingham.

DEATHS.

BURTON.—On the 10th inst., at Lee Park Lodge, Blackheath, John M. Burton, F.R.C.S., in his 70th year.

CHURCH.—On the 1st inst., at Rodwell Lodge, Weymouth, William John Church, F.R.C.S., formerly of The Circus, Bath, in his 88th year.

CORTIS.—On December 27th, at Carcoar, N.S.W. (suddenly), Herbert Liddell Cortis, M.R.C.S., aged 28.

JONES.—On the 29th ult., at Strefford House, Sutton, Surrey, Robert Jones, M.R.C.S., L.S.A.Lond., of Strefford, Craven Arms, Salop, aged 80.

MADDEN.—On the 5th inst., at Vernon-terrace, Booters-town, Dublin, Richard Robert Madden, F.R.C.S.Eng., formerly Colonial Secretary, Western Australia, and Secretary to the Loan Fund Board, in his 88th year.

MATHEW.—On the 6th inst., at Eastbourne, James Edward Mathew, F.R.C.S., aged 67.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

Medical Diary for the ensuing Week.

Monday, February 15.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesdays, same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Charles Stewart: On the Organs of Hearing.

SOCIETY OF ARTS.—8 P.M. Prof. F. Guthrie: Science Teaching (Cantor Lecture).

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Clinical Evening. Dr. Maguire: Case of Dystrophy of the Thumb-joints.—Messrs. Francis Mason and Hurry Fenwick: Case of Excision of the Elbow after Operation followed by Tubercular Testis.—Mr. Spencer Watson: New Instruments for the Removal of Nasal Polypi.—Dr. Radcliffe Crocker: Cases of Pityriasis Circinata and Tuberculated Leprosy.—Mr. John H. Morgan: Case of Congenital Constriction by Band producing Perforating Ulcer of the Foot in an Adult. Living Specimens at 8 P.M.

Tuesday, February 16.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 and Thursdays at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Mr. Charles T. Newton: The Unexhibited Portion of the Greek and Roman Sculptures in the British Museum.

STATISTICAL SOCIETY.—7.45 P.M. Dr. William Ogle: Suicides in England and Wales in relation to Age, Sex, Season, and Occupation.

SOCIETY OF ARTS.—8 P.M. Dr. Robert James Mann: The Present State of the Colonial Possessions of Great Britain.

PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. Drs. Moxon, Beevor, and George Ogilvie: Cerebral Tumours.—Dr. Hale White: Thinning of Skull from Cerebral Tumour.—Dr. Carrington: Cancer of Body of Stomach.—Mr. J. Hutchinson, jun.: Cylindrical Cancer of Humerus.—Mr. C. J. Symonds: Syphilitic Hepatitis and Pneumonia in an Infant.—Mr. Stephen Paget: Dermoid Cyst of Tongue.—Mr. Clutton: Epithelial Tumour of Skin near the Rectum.—Dr. S. West: (1) Aneurysm of Aorta and Aortic Valves; (2) Abscess of Gall-bladder (card).—Mr. D'Arcy Power: Multiple Intussusception.—Dr. Hadden: (1) Intestine in Lymph-adenoma; (2) Malignant Disease of both Suprarenals (cards).—Dr. Turner: (1) Syphilitic Ulceration of Trachea; (2) Conjoined Kidneys and Unicorn Uterus (card specimens).—Mr. J. Poland: (1) Amputation Stump at Knee-joint; (2) Dislocation of Knee-joint (card specimens).—Mr. E. H. Fenwick: Atresia (? Congenital) of Orifice of Ureter, Cystic Kidney (card).

Wednesday, February 17.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesdays and Thursdays, 1.30 P.M.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Charles Stewart: On the Organs of Hearing.

SOCIETY OF ARTS.—8 P.M. Prof. George Forbes: Some Points in Electrical Distribution.

Thursday, February 18.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 3 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Prof. W. Chandler Roberts-Austen: Metals as affected by Small Quantities of Impurity.

PARKES MUSEUM OF HYGIENE.—8 P.M. Mr. Victor Horsley: Hydrophobia.

HARVEIAN SOCIETY OF LONDON.—8.30 P.M. Mr. Rayner: Cases of Discoloration of the Skin in Newly-born Children from Absorption of Aniline Dye.—Dr. A. E. Sansom: On some Modern Remedies in Cardiac Diseases.

Friday, February 19.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Charles Stewart: On the Organs of Hearing.

SOCIETY OF MEDICAL OFFICERS OF HEALTH.—7.30 P.M. Mr. S. R. Lovett: On an Important Decision under the Sanitary Act of 1866 as to the Power of a Nuisance Authority to make Regulations for Houses let in Lodgings.—Messrs. Wynter Blyth and Albert Spencer: The Supervision of the Milk supply of the Metropolis in reference to the Propagation of Disease.

SOCIETY OF ARTS.—8 P.M. Mr. F. C. Danvers: Historical and Recent Famines in India.

ROYAL INSTITUTION OF GREAT BRITAIN.—9 P.M. Prof. W. H. Flower: The Wings of Birds.

Saturday, February 20.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Mr. Archibald Geikie: The History of Volcanic Action in the British Isles.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Stewart's Instruments.)

THE LANCET Office, Feb. 11th, 1886.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Grass Min.	Remarks at 8.30 A.M.
Feb. 5	30·13	N.W.	36	34	...	38	33	...	Overcast
,, 6	30·24	N.E.	32	32	...	39	29	...	Overcast
,, 7	30·14	N.E.	33	...	...	38	30	...	Bright
,, 8	30·72	S.E.	30	...	...	36	29	...	Hazy
,, 9	30·73	N.E.	28	...	...	34	26	...	Foggy
,, 10	30·61	N.E.	28	...	...	33	25	...	Foggy
,, 11	30·23	S.W.	33	34	...	...	27	...	Foggy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

PRESCRIBING BY TELEGRAPH.

ACCORDING to an American contemporary, a great number of the operators in the chief office of the Western Union Telegraph Company, New York, are graduates in medicine or medical students who are thus working their way through college. Occasionally, as in the following instance, they have an opportunity to use their professional knowledge to good advantage. One of them recently had his attention attracted by the terms of a message which was being received in the office in which he was employed. It was to the effect that a certain physician was wanted at a place three miles away, to attend a young person who had just swallowed an ounce of laudanum. The student operator at once asked for all the particulars, and on receiving them a consultation was held at the office. It was decided that it would be hazardous to postpone treatment until the medical man to whom the message was addressed could be found and he had driven three miles to attend a patient in so dangerous a condition. The operators therefore ordered by telegraph that powerful emetics should be administered, suggesting home-made ones, after which the patient was to be rubbed and whipped with switches. The order was carried out, and with successful results. The physician arrived an hour later; but his attendance would have been useless had the interval been wasted.

Mr. Hobgood.—We do not see in the Medical Register or Directory the name and address of the person whose testimonial is referred to.

Cosmopolitan.—No.

Mr. Thos. Ellis.—Our correspondent is the best judge of the exact fees he should charge. These should depend upon the means of his patient and his estimate of the value of his own time and skill. The fees he mentions are, in the abstract, too small for such services as those described.

THE COLLEGE OF PHYSICIANS' LIST.

To the Editor of THE LANCET.

SIR,—Placing the College list of this year (1886) along with some of its predecessors, I notice that of 1836, and turning to its pages observe that of its 463 members (all told) there remain on the present year's list but seventeen—viz., four Fellows who were Fellows in 1836, one Fellow who was then a candidate, five Fellows who were inceptor candidates, two Fellows who were licentiates, three members, and two licentiates since 1833–34. Many considerable names of our time appear not on either list, having come and gone between these two dates. Yet will they and their work be remembered without reverting to the intervening lists. Such were Baly, Bence-Jones, Bird, Parkes, Peacock, Sibson, Tyler Smith, Brinton, Murchison, Pagge, and others. The censors for 1836 were Paris, Chambers, Holland, and Richard Bright—in the sixteenth year of Sir Henry Halford's presidency.

I am, Sir, yours truly,

Feb. 9th, 1886. C. H.

THE MEDICAL ASPECT OF THE PROVIDENT DISPENSARY SYSTEM.

IN a letter in the *Pendleton Times and Reporter* "Justitia" complains of the working of the Provident Dispensary Scheme in Manchester and Pendleton, especially since the wage-limit of membership was abolished, and families are admitted whose united earnings amount to pounds a week. It is clear that such families have no claim on medical attendance for a penny a week and a penny each bottle of medicine, as in the Manchester Scheme, which, according to "Justitia," left the medical man, after payment of expenses, about fourpence per visit and consultation. We have long endeavoured to show that by such a system the profession is injured more than by the occasional gratuitous relief of the humble class of work people at hospitals.

Mr. W. Fraser (Ashburton).—Yes. But we cannot promise insertion of every paper.

"PEAT SMOKE AND PHTHISIS."

To the Editor of THE LANCET.

SIR,—With reference to your correspondent's inquiry on this point in your last issue (p. 286), and to your editorial note in reference to the same, will you allow me to point out, on the authority of Hollinshed as quoted by Lord Lytton ("The Last of the Barons," Routledge's ed., p. 192), that "not one of the houses in England could boast a chimney in 1466; but the smoke from the single fireplace in each, after duly darkening the atmosphere within, sent its surplusage lazily and fitfully through a circular aperture in the roof. The smoke was considered good both for house and owner; the first it was supposed to season, and the last to guard from rheums, catarrh, and poses." Describing a later period of our history—viz., the reign of Elizabeth—Mr. Green says ("A Short History of the English People," p. 615) that "the chimney corner, so closely associated with family life, came into existence with the general introduction of chimneys, a feature rare in ordinary houses at the beginning of this reign." If we may judge from Macaulay's famous third chapter, this "feature" would scarcely appear to have graced all our houses during the whole of the era of the Stuarts, and we know that the plague visited this country more than once during that same era. Every scholar is familiar with Erasmus's famous description of our "filth"—a filth which Hecker calls (p. 214) "truly Scythian"—in the time of Henry; and Hallam expressly tells us that the Spaniards who accompanied Philip to England in 1554 were never tired of saying that "these English have their houses of stick and dirt, but they fare commonly so well as the king." Very similar testimony as to the "filth" of Edinburgh, Glasgow, Paris, &c., might be adduced out of Howell's Familiar Letters, Smollett, a book called "Varia," and especially from Beckman's History of Inventions; but though other diseases are mentioned as prevailing in these places, or during these periods, nothing is said specially about phthisis. Turf (*alias* peat) was when I was a boy almost the only fuel used in the south of Ireland. It is still, I believe, the principal fuel in Connaught, as well as in the Highlands and Hebrides; and I am not aware that the registrars of these countries regard this disease as non-existent in either of them. I believe, in short, that peat smoke is no more antagonistic to phthisis than is cow-dung or other "odour" of that kind; but high altitudes have ever conduced to a supple limb and a vigorous frame, and "an ample supply of *pure* [mountain] air is everywhere the great prophylactic."

I am, Sir, your obedient servant,

Auriol-road, W., Feb. 7th, 1886. WM. CURRAN.

THE SICKNESS AND ACCIDENT ASSURANCE ASSOCIATION, LIMITED.

To the Editor of THE LANCET.

SIR,—My attention has been called to an article which appeared in your columns a few weeks ago regarding a circular issued by this association to one leading medical man in every populous place in England and Scotland. To the remarks made in that article you will perhaps kindly permit me to make a reply. Our circular described the fees as utterly inadequate, mentioned the circumstances under which they were offered, and at the same time asked the opinion of the medical men to whom it was sent regarding them under these circumstances. It may interest your readers to know how the circular was received by the profession. Not taking into account those who from death, removal, or retirement were unable to act, the number who write approving can only be expressed by four figures. The number who disapprove is under twenty, the proportion thus being as over fifty to one. Upon the circumstances themselves I will not dilate—such as the fact of this *not* being a life office, as described in your article, and therefore not to be compared with such an institution, the smallness of our quarterly premiums (many of them under ten shillings), the inadequacy of the remuneration of all the officials during the first twelve months, the promised increase in a few months, and the fact that in connexion with claims our appointment will continue to bring work which in the case of a life office ceases with the examination. Without entering upon these, I may be permitted to say that the good-will thus expressed towards the association by what I think I am fairly entitled to call the entire medical profession has been to the directors gratifying in the extreme. I may also be allowed to express the hope that those who have borne the burden and heat of the day, and have for a few months acted for remuneration so inadequate, will ere long reap the reward by the appointment turning out, with increasing business and increasing fees, all that their and my own best hopes can wish.—Yours faithfully,

Edinburgh, Feb. 6th, 1886. J. B. BLACK, Manager.

"THE CONNEXION BETWEEN THE PAROTID GLANDS AND THE GENERATIVE ORGANS."

To the Editor of THE LANCET.

SIR,—I had a case a few years ago closely resembling the first of the cases described by Dr. Cribb in your issue of Jan. 30th. The patient, a gentleman aged eighty, had some prostatic enlargement; and as there was a fair amount of "residual" urine after micturition, it was decided, in consultation with Sir Prescott Hewett, that a flexible catheter should be used night and morning. The patient bore the treatment well for a couple of months, when, from a real or fancied inability to pass urine in the afternoon as he had been accustomed to do, he insisted, against my advice, on having the catheter passed three times a day, sometimes oftener. After about a week of this treatment his bladder began to show symptoms of irritability, and I was summoned to him early one morning in consequence of a sharp rigor which he had had about daybreak. I found his temperature 100·4°, and he complained of stiffness about the jaws. About noon on the same day his right parotid began to swell, and was acutely painful to touch. The swelling rapidly increased, and as the patient's frame was already much enfeebled, he sank from pyrexia and consequent exhaustion within forty-eight hours from the initial rigor. This was certainly not a case of "mumps" from contagion; but was it septic or metastatic parotitis? I may add that throughout there was no pus (visible to the naked eye) in the urine.

I am, Sir, your obedient servant,

Piccadilly, Feb. 4th, 1886. T. BROWNE O'CONNOR.

Mr. W. J. Merlin.—Our correspondent will act kindly in paying the visits and being in readiness to give any advice or help he can. He will, of course, make it clear that he is in no way responsible for the use of a secret remedy.

HYDROPHOBIA; A PLAN OF TREATMENT PROPOSED.

To the Editor of THE LANCET.

SIR,—As deaths from this terrible disease are now daily occurring, I shall be obliged if you will, with your usual kindness, allow me to place before your readers a plan of treatment which involves no risk to the patient, and which I devised some time ago, but as yet have had no opportunity of carrying into practice and so testing its value. To put the plan as concisely as possible, I shall merely confine myself to the principles involved. They are: (1) To alleviate the spasms by inhalations of oxygen, administered, if necessary, through a tracheal opening, at the ordinary (or slightly increased) atmospheric pressure; (2) to eliminate the poison of the disease by subcutaneous injections of pilocarpine; (3) to support the patient's strength by peptonised nutrient enemata; (4) if necessary, to supply the loss of the watery constituents of the blood, due to the action of the pilocarpine, by hypodermic injections of warm saline solutions, to which chloral hydrate may be added according to circumstances; (5) to destroy the virus (?) and at the same time ward off any impending attack of asphyxia by hypodermic injections of cosmised ether.

I am, Sir, your obedient servant,

January 11th, 1886. G. C. P.

THE GUARDIANS OF THE SKIPTON UNION.

To the Editor of THE LANCET.

SIR,—About eighteen months since I was elected medical officer to the Grassington district of this union, extending over an area of 22,000 acres, in which there are about twelve thinly-populated and widely-scattered villages (some of them six miles distant), at a salary of £18 a year. Finding that this salary was not nearly sufficient to pay the working expenses, I applied for an increase, which application was not entertained, and I in consequence resigned the appointment. The guardians, being of opinion they could easily obtain some other fully qualified medical practitioner to do the work at that salary, inserted an advertisement in the public journals holding out delusive hopes as an inducement for someone to accept it. Strange to say, there are several applicants from Ireland and Scotland, as usual, one of whom no doubt will be elected to the valuable appointment; but what additional income he expects to make goodness knows, as the district contains only a poor population of about 1400. What is our profession coming to?

I am, Sir, yours truly,

THE PRESENT RESIDENT MEDICAL OFFICER.

Grassington, Yorkshire, Feb. 9th, 1886.

"MORTALITY IN THE MEDICAL PROFESSION."

To the Editor of THE LANCET.

SIR,—In your issue of to-day (p. 201) you give an abstract of an excellent paper by Dr. Ogle on the mortality in the medical profession, and an able leader on the same (p. 211). There is one point that I do not think too much stress can be laid upon. It is the fact that in regard to phthisis and diseases of the respiratory organs the medical profession compares very favourably with other classes. Many medical men hold that phthisis is infectious. If it were so, would it not be much more common in members of the profession who attend upon the sick, as it is in the case of other infectious disorders, such as typhus, scarlatina, &c.? I consider the fact of its not being so of far more value than a few alleged cases of phthisis being communicated from husband to wife, or *vice versâ*. The small number of the latter can easily be explained on the ground of being a mere coincidence, just as one might find cases in which both man and wife suffer from rheumatism, which no one asserts to be infectious.

I am, Sir, yours faithfully,

January 30th, 1886. W. B.

SEA-SICKNESS.

MR. GOSTLING, F.R.I.B.A., writing from Alexandria, states that he has found the following measures useful to those troubled by sea-sickness. Little or nothing should be eaten on going on board, and the sufferer should retire to his cabin and lie head to bow, if possible, before the boat gets into rough water. By the adoption of these precautions, Mr. Gostling states that in the majority of cases sea-sickness will be avoided altogether, while in the few exceptional cases its ill-effects will be greatly modified, and a speedy recovery assured. If the berth is transverse, the occupant should lie with the head towards the centre of the ship.

G. C.'s letter deals with an important matter, but we cannot open a discussion upon it.

Mr. H. M. Gardner.—Bureaux de la Semaine Médicale, 16, Avenue de Lamotte-Piquet, Paris.

Mr. Allison (New York).—We cannot exchange.

THE THREE TOWNS FRIENDLY SOCIETIES MEDICAL INSTITUTION.

To the Editor of THE LANCET.

SIR,—Your article upon the above subject is so full of inaccuracies, that we are compelled to correct some of the statements contained in it. We have never desired to work our medical officers as horses or as any other quadruped; we have always recognised that their position is a very responsible one, and sought to relieve them from any approach to over-pressure when such appeared likely. We sought the advice of our two residential doctors as to the best means of providing additional medical assistance. They advised the engagement of two consulting doctors, one at each dispensary; Dr. Kelly advising that the salaries should be £100 per annum each. We considered the matter, and resolved to engage for twelve months one consulting officer only at £150 per year, which amount we increased to £180 after six months' trial. We have tried the experiment for one year, and that experience has taught us that our wisest course is to engage two consulting officers as first advised by our residential doctors. We do not, however, believe that Dr. Kelly's estimate is either fair or generous as to the salaries. His position is equal to a private practice of over £400 a year. We therefore decided to give £150 as a salary to each of the consulting doctors. Respecting the cab hire, your statements are simply ridiculous. We have never required any such preposterous explanations from Dr. Kelly about his cab hire as you name. If you had read the correspondence in the *Western Daily Mercury* a short time since on the whole subject, you would have learned that we were quite willing to provide any necessary cab hire; our objection was expressed against a lavish expenditure by Dr. Kelly, which the working of the Devonport district (where the work has been heaviest) proved to be extravagant beyond excuse. We therefore determined to increase the salaries of the residential doctors, the engagement of the two consulting ones relieving them of the work at the dispensaries, so that they shall in future, except in severe epidemics, pay for their own cab hire. Dr. Kelly offered, if we engaged two consulting officers, to provide his own cab hire for £20 per annum. We have engaged the two consulting officers as wished, but have given £50 per annum extra, instead of the £20 which he named. Your knowledge of our local geography appears to be singularly deficient, for the district of Dr. Kelly is not twenty miles in circumference, neither is it eight miles, and a considerable portion of that is open space.

You very offensively charge us with shabbiness; in reply, we offer Dr. Kelly's own evidence in refutation of the accusation. The following letter was written by him to the committee last June, three months after their resolution respecting his cab hire had been sent to him.

2, Boon's-place, June 5th, 1885.

DEAR SIR,—Will you kindly communicate my best thanks to the committee for their great generosity in refunding the expenses incurred in procuring locum tenens. I am deeply sensible of the kindness of this spontaneous act on their part.—Very truly yours,

M. D. KELLY.

The amount referred to was £20. The rule respecting the settlement of disputes is a portion of the Friendly Societies Act bearing upon this point. Doctors may be fond of litigation, we are not, and consequently prefer to guard against it by availing ourselves of the means which the wisdom of our legislators have provided.

We are, Sir, yours obediently,

W. N. ELLIOTT, Chairman.
W. H. HOOPER, Vice-chairman.
W. COURTES, Secretary.

Stoke, Devonport, February 3rd, 1886.

*** We insert the above letter without being convinced by it of the injustice of our principal criticisms on the action of the authorities of the Three Towns Friendly Societies Medical Institution. The letter, indeed, contains evidence of the contrary, and shows that when the two medical doctors thought two fresh officers necessary, one only was appointed. As to the amount of cab fare *necessary*, we prefer the medical estimate of that to the estimate of the committee. Generally, we regret to say, we adhere to our opinion that the committee are not generous in their views of the value of medical service, or wise in expecting that so much work can be done for so little money and by such few hands.—ED. L.

SYMPATHETIC IRRITATION OF THE PNEUMOGASTRIC.

To the Editor of THE LANCET.

SIR,—I should be glad if any of your readers would favour me with suggestions for the treatment of the following case.

M. D——, six weeks advanced in her seventh pregnancy, is suffering from sympathetic irritation of the pneumogastric nerve, causing complete prostration, impediment to breathing, and very great distress. In her first four pregnancies she had no unusual symptoms from beginning to end; in the fifth the nerve irritation took the place of the usual morning sickness, and lasted till quickening, notwithstanding treatment at the hands of Dr. Priestley and myself. In the sixth the same train of symptoms occurred till a miscarriage resulted at four months. Now the same troubles exist. I have tried bromides and nerve-tonics of all kinds. My patient lies on a sofa, utterly wretched and depressed. I can find no mention of such cases in any text-book, and when I say that Drs. Priestley, Matthews Duncan, and Playfair have all seen and prescribed for the case without result, my anxiety will be understood. If any professional friend can offer any aid, I shall be very sincerely obliged. I am, Sir, yours faithfully,

Russell-road, Kensington, W., Feb. 4th, 1886. W. TOWERS-SMITH.

A Somerset Surgeon.—Scurf in the head is constituted either by epithelial desquamation occurring in slight or chronic inflammatory diseases—such as eczema or psoriasis, or ringworm—or by an abnormal outpouring and accumulation of sebum, just as scaliness of the general surface may accompany a number of conditions. The treatment will depend on the nature of the affection; but if the scurf alluded to is that characterising the common alopecia furfuracea, our correspondent will probably find effective the slight stimulation and cleansing of the scalp by tar soap, followed by the gentle inunction of weak citrine ointment.

"POISON FOR TWOPENCE."

To the Editor of THE LANCET.

SIR,—May I mention, in corroboration of your remarks (THE LANCET, Jan. 2nd, p. 30) upon a statement made by my predecessor at the inquest on a recent case of oxalic acid poisoning, that another case of poisoning by the same drug was admitted into the hospital last week. In this instance the patient had bought at a neighbouring chemist's the orthodox twopennyworth, of which quantity half had been taken. Fortunately, the symptoms were not of a very serious nature, and the patient soon recovered.—I am, Sir, yours faithfully,

WALTER G. AXFORD.

Jan. 26th, 1886. House Surgeon, Westminster Hospital.

Dr. Weaver.—Negotiations are now, we learn, in progress with respect to the matter.

Dr. H. Blanc (Cannes).—The paper will appear in an early number.

COMMISSIONERS IN LUNACY.

To the Editor of THE LANCET.

SIR,—Adverting to the leading article in your impression of the 6th inst. upon the subject of Lunacy Law Reform, you state that the Commissioners in Lunacy require a plateau of twenty-five acres upon which buildings having a frontage of 600 feet may be erected. Be good enough to inform your readers that the frontage alluded to would extend 600 *yards*. I am, Sir, your obedient servant,

London, Feb. 8th, 1886. G.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Mr. Edis; Dr. Braxton Hicks, London; Mr. Lawson Tait, Birmingham; Mr. L. Humphry, Cambridge; Dr. H. V. Sandford, Hereford; Dr. Harries, London; Mr. David; Dr. K. Spender, Bath; Mr. T. B. O'Connor, London; Dr. McKeown, Belfast; Mr. Groves, Woodford; Mr. Towers-Smith, London; Dr. Edwards, Philadelphia; Surgeon-Major Lunn, Lewes; Mr. Habgood, Somerset; Mr. Gostling, Bombay; Mr. W. A. Ellis, London; Mr. Callander, London; Mr. Boyce, London; Dr. D. B. Lees, London; Mr. Malvin, Harrogate; Mr. Petter; Mr. Tunmer, Harrogate; Dr. Jas. Adam, London; Mr. Karkeek, Torquay; Mr. M. Smale, London; Mr. Annandale, Edinburgh; Mr. A. D. Moffat, Glasgow; Mr. H. C. Gillies, Brockley; Mr. E. C. Beale, London; Mr. W. Brown, Carlisle; Dr. Curran, London; Mr. Merlin, Sutton; Mr. J. R. Forest, Suakim; Dr. Jacob, Leeds; Dr. West, London; Mr. Lawrence, Birmingham; Mr. J. L. Kerr, Manchester; Messrs. Griffin and Co., London; Dr. Rolands, Great Crosby; Messrs. Cornish Bros., Birmingham; Mr. Newman, London; Mr. Binks, Clayton; Dr. P. Kidd, London; Mrs. Rahn, Ipswich; Miss Tyler; Mr. Gardner, Victoria-park; Mr. Saddell, Paddington; Messrs. Lee and Nightingale, Liverpool; Messrs. Waltham and Co.; Mr. Bottomley, Ashton-under-Line; Mr. Allison, New York; Mr. Evans, Cardiff; Messrs. Black and Johnstone; Mr. Sheridan, Blaina; Messrs. Johnstone and Co., Edinburgh; Mr. Cockburn, Torquay; Mr. Holmes, Egham; Mr. Hulme, Edinburgh; Mr. Skerrett, Bristol; Mr. Evans, Llanrwst; Dr. Wilson, Huntley; Mr. Mayger, Burton-on-Trent; Messrs. Porrett and Co., Sunderland; Mr. Barron, Manchester; Mr. Bland Sutton; Dr. T. W. Hime, Bradford; Miss Wheeler, Worcester; Dr. Jas. Weaver, Southport; Mr. Groves, Dorchester; Dr. Parkhill, Darfield; Dr. H. Blanc, Paris; Mr. W. S. A. Griffith, London; Mr. Morton; Mr. David Lobo, Venezuela; Mr. Fraser, Ashburton; Dr. Mantle, Stanley; Mr. A. H. Jackson, Manchester; Messrs. Southall, Birmingham; Mr. Le Grand, London; Dr. More Madden, Dublin; Mr. Hastings, London; Mr. H. Kimpton, London; Mr. H. V. Rake, London; Messrs. Cox and Co., Brighton; Mr. Anderson, Stronsay; Mrs. Simpson, Sydenham; Miss Learmonth, London; Mr. Hawkings, London; Mr. Lloyd, Liverpool; Mrs. Skipworth, Calstor; Dr. Rayner, Great Malvern; Mr. F. P. Atkinson, Surbiton; Spero Meliora; Medica; W. M. D.; C. H.; G.; G. P.; Resident Medical Officer, Grassington; A New Member; Theta; G. C.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Latham Cambridge; Mr. Maythorn, Biggleswade; Messrs. Edmondson and Co., Skipton; Mr. Harrison, Liverpool; Messrs. Bewlay and Co., Dublin; Mr. Montford; Mr. Robertson, Henley; Mr. Burgess, Invergordon; Mr. Hogg, London; Mr. Gant, London; Messrs. Bell and Co., Edinburgh; Mr. Woodd, Calstock; Mr. Dickinson, Nottinghill; Mr. Griffiths, Swansea; Mr. Green, Hull; Messrs. King and Co., London; Dr. Eberle, Thirsk; Dr. Colman, Surbiton; Mr. Alder, Clapham; Mr. Savery, Grimsby; Mr. Harkin, Belfast; Mr. Brook, Huddersfield; Mr. Cash, London; Dr. Braye, Whitechapel; Mr. Hine, Ilminster; Mr. Milne, Thetford; Mr. Moullin, London; Mr. Sharpe, Walsall; Messrs. Smith and Son, Birmingham; Mrs. Nicholson, Manchester; Mr. H. Sergeant, London; Mr. Bishop, Darjeeling; Mr. Turner, Market Harbour; Dr. Rowland; Dr. Saul, Lancaster; Mr. White, Wolverhampton; Mr. Pope, South Shields; Messrs. Oliver and Boyd, Edinburgh; Mr. Ecoins, Gravesend; Mr. Payne, London; Mr. Neve, Leeds; Mr. Broe, Hull; Mr. Perceval, Kingston; Mr. Dickie, Claremont; Mr. Haywood, Southport; Mr. Inglis; Messrs. Mason and Co., Chelsea; B., Manchester; Dr. S., Burton-on-Trent; N.; Surgeon, Pontypridd; Beta, Liverpool; Sanitas; Bromidia, London; A. H. L., Sheffield; J. G. C., Highbury; W. P., Shepherd's Bush; L.R.C.P., Littlemore; M. G., Littleborough; C. A. G., London; E. C. D., Eastbourne; E. A. T., Clifton; S. H. H., Leicester; The Matron, Gravesend Hospital.

Bristol Mercury, Chester Courant, Presbyterian Messenger, Pendleton Reporter, Hull Daily News, Ballarat Courier, Derbyshire Times, Western Daily Mercury, Liverpool Mercury, Hampshire County Times, The Philanthropist, &c., have been received.

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THE

Erasmus Wilson Lectures

ON

EVOLUTION IN PATHOLOGY.

Delivered at the Royal College of Surgeons.

BY J. BLAND SUTTON, F.R.C.S.,

ASSISTANT-SURGEON TO THE MIDDLESEX HOSPITAL, AND LECTURER ON COMPARATIVE ANATOMY.

LECTURE II.

THE INFLAMMATORY PROCESS.

MR. PRESIDENT AND GENTLEMEN,—Inflammation, when viewed in the broadest possible light, may be defined as *the method by which an organism attempts to render inert noxious elements introduced from without or arising within it.* Noxious elements capable of bringing about the phenomena peculiar to inflammation may be denominated *irritants.* Some of them are very coarse, others are peculiarly subtle, often eluding detection. The objective signs of the inflammatory process are so well known that it is needless to repeat them. The redness and swelling, as Galen knew, are the result of increased afflux of blood and exudation of serum, but the determining cause of the afflux has taxed the ingenuity of pathologists. It remained for the ingenuity of Cohnheim to devise experiments whereby the process could be objectively studied under the microscope. From direct observation carried out on the tongue and web of the foot of a frog, the tail of a tadpole, fins of fish, and mesentery of a mammal, we have been informed of the large part played in the inflammatory process by the white corpuscles of the blood. These experiments teach us that in vertebrata the most important feature in the inflammatory process is the vascular disturbance. The next question which suggests itself is this: What are the causes which originate all this vascular disturbance? For the present let it be simply said it is the result of irritation. If we extend our observations to other animals, especially the invertebrata, in whom many of the phenomena of cell life may be studied with tolerable ease, we shall quickly become impressed with the important functions played by active motile cells.

So far as inflammation is concerned, there are three points to which it is necessary to draw attention. They are: 1. The capacity exhibited by certain cells of effecting a change of place and form. 2. Their power of taking into their interior various substances with which they may come into contact. 3. The property they possess of decomposing organic material when in their interior or in contact with their protoplasm; this is termed intra-cellular digestion.

The first of these, or the inherent property possessed in many instances by protoplasm of moving with a rapidity perceptible with the aid of a microscope, is an acknowledged fact in biology. These movements may be produced by stimuli. The discovery by Wharton Jones in 1846, that the leucocytes of human blood possessed this property was a most important step. The capacity of the leucocytes to change their position forms one of the commonest of demonstrations in the physiological laboratory.

We must now consider the second statement—that of the power of ingestion. In 1862 Haeckel showed that when a tethys, a naked (shell-less) mollusk, is injected with indigo, the granules are taken up by the blood-corpuscles, and he further showed the occurrence of similar phenomena in the blood of various invertebrata. One of the most important results of these observations was the discovery that the cells of the blood of man and other vertebrates possess similar properties, and Cohnheim turned it to advantage in that it enabled him to demonstrate beyond question, that the migratory cells seen in the cornea when inflamed are directly derived from the blood.

Having considered the peculiar property of cells, whereby they ingest foreign bodies, it becomes essential to inquire concerning the fate of the ingested material, for it is of the highest interest in connexion with the process of inflammation. It has long been known that when an amœba takes into its interior a green-coloured plant, and is kept under observation, it is found that the ingested material gradually breaks up, loses its green colour, and finally disappears. The amœba is thus capable of taking food into its interior, and of making it part of itself, a process conveniently called nutrition, and is really the outcome of the process of digestion. When the process is carried on in a cell of this kind it is spoken of as intra-cellular digestion. Our knowledge of this process has been very largely extended by the researches of the eminent Russian biologist, Metschnikoff, who has done more than any other observer in this important and interesting line of inquiry. His investigations were first carried out on the sponges; later, he extended them to the hydroid polyps and hydro-medusæ. By using carmine he was able to watch its inception by the endoderm cells. In one case, that of Mesostomum ehrenbergii, the turbellarian refused to take the carmine; but Metschnikoff fed a nais with carmine, and induced mesostomum to eat the nais; examination showed the presence of carmine in the digestive cells of the turbellarian.

In 1880 Jeffrey Parker communicated to the Royal Society a paper on the Histology of Hydra fusca, which contains valuable evidence in support of intra-cellular digestion, and the paper is especially interesting in that it shows that the activity of the cells of the endoderm have not been sufficiently insisted upon, for in some cases by means of their pseudopodia the endoderm cells can actually obliterate the digestive case. He also shows that the endodermic cells carry on the process of digestion, for he found in their interior the partially disintegrated bodies of entomostraca. Soon afterwards Lankester was able to show that in the case of the fresh-water medusæ, which were discovered in the lily-house of the Botanical Gardens in 1880, intra-cellular digestion could be observed in these transparent forms. Interesting as these observations are, and valuable in that they prove the existence of intra-cellular digestion, yet it is necessary to detail the experiments by which Metschnikoff showed unquestionably that the wandering cells are capable of digesting organic substances. Human blood-corpuscles taken up by the mesoderm cells of bipinnaria become completely absorbed. Milk-globules share the same fate, and when taken up by the wandering cells, break up into small granules and diffuse themselves throughout the cell substance. The following experiment was devised to show that the cells do not ingest everything indiscriminately. On injecting into phyllirhöe living ova of a sea-urchin, it was found that neither young ovarian cells nor ripe ova which had extruded polar globules were eaten by the mesoderm cells; on the contrary, they seemed to live much longer than when placed in sea-water. Whilst in the tissues of phyllirhöe they could be fertilised, segmentation and a normal blastopore being produced. When spermatozoa of the sea-urchin were introduced they were quickly surrounded and eaten by the mesoderm cells. Observations on the necrotic organs of several invertebrates have shown that it is the function of mesoderm cells to devour the dying elements of such organs. If fluids containing bacteria be injected beneath the skin of bipinnaria and others, or if they develop spontaneously in the wounds of such animals, they will soon be found within the substance of many amœboid cells. In many cases the bacteria lose their motility and become so delicate as scarcely to be visible. In botryllus, Metschnikoff has found a spirochœte closely resembling the S. obermeyeri of relapsing fever and a small bacillus like the lepra bacillus. In both cases they were pursued, ingested, and absorbed by the mesoderm cells, some of which perished in the attempt and could be seen with long bacterial filaments projecting from them. The same process may be seen in the blood of vertebrates, where in bacterial affections such as anthrax the bacilli are taken up by the leucocytes.

We must now consider some examples of intra-cellular digestion in other than invertebrates. It has already been mentioned that this property of digestion possessed by cells is not merely used for nutritive purposes, but is also utilised for removing larval organs, and to protect the organism from harmful bodies. Before entering into details, it is necessary to refer to one other curious phenomenon presented by amœboid cells—namely, that of two or more cells fusing together so as to form a larger mass of protoplasm. Protoplasmic masses formed in this way are termed plasmodia. Metschnikoff has watched their formation, and regards them as equivalent to giant cells. In all cases in invertebrates they have arisen around foreign bodies, and

always by fusion of separate cells. There is abundant good reason to believe that giant cells in the higher vertebrata, when they do occur, arise from the fusion of leucocytes. In 1870 Dr. Caton published in the *Journal of Anatomy and Physiology* a contribution to the theory of cell-migration, and, as he points out, this process may be said to have its probable maximum activity in the tadpole. He further tells us that in the month of April he observed the process to take place to such an extent that he had some doubts that it might not be a possible physiological occurrence. The following observations have an interesting bearing on this point. Metschnikoff has shown that in the early stages of absorption of the tails of larval batrachians a large number of amœboid cells are present, within which are seen remnants of nerve fibres and fragments of muscle. These fragments of the tail are digested and absorbed by the amœboid cells, which are in reality leucocytes engaged in devouring the tail of the tadpole, and have been named in consequence "phagocytes." I have been able to follow the process in considerable detail by means of sections carried through the tail of tadpoles in various stages, and can fully confirm the observations of Metschnikoff with regard to the devouring propensities of the leucocytes. There can be little doubt that not only the tail, but also the gills, are eaten up in this manner. Bacteria are evidently an old source of trouble in the world; they affect animals of all kinds, even water fleas. Metschnikoff tells us of combats he has witnessed in the daphnia, between the white cells of the blood and bacteria, and how when one cell was not sufficient to attack the invading bacterium, two or more would fuse together, surround, digest, and thus rid the daphnia of the intruder. Can these facts be applied to mammals? If the cornea of a rabbit be irritated by nitrate of silver or a fine silk suture, the tissue becomes in a few hours red and hazy, due to escape of leucocytes from the vessels to repel, or if possible to destroy, the offending material. Draw a fine thread across the interior of a vein, leucocytes soon swarm around it. In tubercle, leprosy, perlsucht, or avian tuberculosis, the characteristic lesions swarm with bacilli. These minute organisms are often taken up by cells, and especially by giant cells, which in the two last mentioned affections crowd the affected area in great numbers. The consideration of these facts seems to indicate that in the giant cell we have the counterpart of the fusion of phagocytes, as in the case of the daphnia and other invertebrates, and it is in reality an effort of the blood-corpuscles to rid the tissues of noxious elements. The large multinuclear cells, osteoclasts, seen in bone undergoing absorption, must also be placed in the same category. These observations present the whole process of inflammation in an entirely new aspect, and instead of being a purely pathological process, it will rank as one of normal physiology, which when in excess comes within the domain of pathology.

At the commencement of the lecture it was stated that bodies capable of originating the inflammatory process were recognised under the convenient term of "irritants." Inflammation may be of two kinds according to the nature of the irritant. It may be simple or specific. Simple inflammation is the reaction which follows mechanical, thermal, or chemical stimuli or irritation. A specific inflammation is one which results from the introduction into the organism of a particular poison or irritant, such as variola, glanders, tuberculosis, perlsucht, actinomycosis, and the like. That the effects of inflammation vary with the irritant no one can deny. Dirt on a child's hand produces warts, decaying animal matter will in some cases produce veruca necrogenica; soot, the soot-warts, &c. No class of pathological productions illustrate the reaction of the organism to a specific virus so well as the peculiar group now known as the infective granulomata, which comprises tuberculosis, human, bovine, or avian; leprosy, syphilis, glanders, actinomycosis, &c. The histological characters of the morbid formations in each of these diseases are practically identical; a soft tissue made up almost entirely of round cells, very little intercellular substance, the presence of giant cells, and in most of them a bacillus or a fungus, is a constant feature. This infectiveness is very pronounced, for they may be transferred easily from one organism to another, and the "irritant" may be cultivated in artificial media. My observations, which have extended over the most important groups of the vertebrata, go to show that the mode by which a piece of noxious tissue is encapsuled or cast out of the body, is only an illustration on a large scale of the process by which bacilli, bacteria, micrococci, &c., are in some cases rendered inert by the activity of cells. If, as in the case of the daphnia, the quantity of micro-organisms invading the body is large, and the vitality of the organism enfeebled, the leucocytes are insufficient to cope with the invasion, and disastrous effects result.

If we summarise the story of inflammation as we read it zoologically, it should be likened to a battle. The leucocytes are the defending army; the roads and lines of communication, the bloodvessels. Every composite organism maintains a certain proportion of leucocytes as representing its standing army. When the body is invaded by bacilli, bacteria, or micrococci, chemical or other irritants, information of the aggression is telegraphed by means of the vaso-motor nerves, and leucocytes rush to the attack; reinforcements and recruits are quickly formed to increase the standing army, sometimes twenty, thirty, or more times the normal standard. In the conflict cells die and often are eaten up by their companions; frequently the slaughter is so great that the tissues become burdened by the dead bodies of the soldiers in the form of pus, the activity of the cell being testified by the fact that its protoplasm often contains bacilli &c. in various stages of destruction. These dead cells, like the corpses of soldiers who fall in battle, later become hurtful to the organism they in their life-time were anxious to protect from harm, for they serve as breeding-grounds wherein the bacteria may germinate, and, like a pestilence and scourge, devastate the individual. The analogy may seem to many a little romantic, but it appears to me to be warranted by the facts which I have ventured to place before my audience.

Clinical Lecture

ON

GASTROSTOMY IN THE TREATMENT OF ŒSOPHAGEAL CANCER.

Delivered at the Birmingham General Hospital, November 26th, 1885.

BY T. F. CHAVASSE, M.D., C.M., F.R.C.S. ED.,
SURGEON TO THE HOSPITAL.

GENTLEMEN,—The surgical treatment of cancerous stricture of the œsophagus has of late years received considerable attention. Three proceedings may be said to have proved of service:—I. The gentle passing of a small bougie through the stricture. II. The prolonged retention in the œsophagus of a tube passing beyond the stricture, in calibre equal to a No. 8 or 10 English catheter. III. Gastrostomy.

I. *The passing of a small bougie through the stricture.*—The effects of this proceeding are often most marked for a time, the patient being subsequently able to swallow liquids with comparative ease. The duration of this facility varies, but I have known it remain for several weeks.

A case that recently came under my notice was a private patient of Dr. Littlewood's, of Walsall. I saw him on July 22nd, 1885. The age was stated to be sixty-five; there was a history of gradually increasing, and at the time of consultation most pronounced dysphagia, of emaciation, and of syphilis acquired twenty years before. On examination an obstruction was encountered in the œsophagus, about five inches from the teeth. Eventually a tube the size of a No. 11 gum-elastic catheter was passed through this. The instrument was felt to pass over a roughened surface, and on its withdrawal was found streaked with blood. Immediately afterwards the act of swallowing was much improved, and up to the date of death (Sept. 29th) remained fairly satisfactory, especially if vinegar was taken to aid the downward course of nourishment.

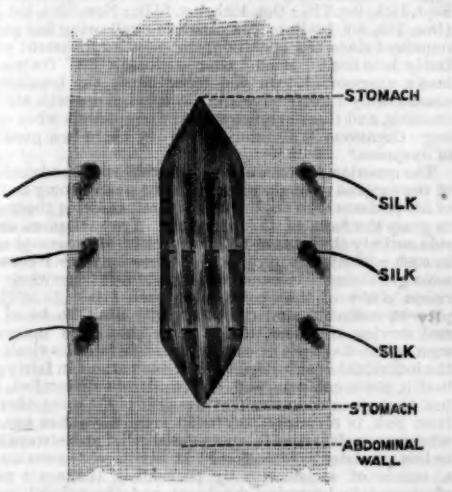
I must, however, warn you not to repeat this procedure at frequent intervals when the diagnosis has been satisfactorily completed, or else a perforation of the walls of the gullet may thwart your efforts at alleviation.

II. *The prolonged retention of a tube in the œsophagus.*—Mr. Durham[1] states that in one case he kept the same tube in unremoved for four weeks, the patient feeding himself

[1] Holmes's System of Surgey, vol. i.

comfortably and satisfactorily through it. Except as a means of affording very temporary relief I am adverse to this plan of treatment—1. Because any structure the seat of a malignant neoplasm should be kept at rest, and not irritated in any way, if a slow development be wished for. A foreign body passing through an epitheliomatous growth in the œsophagus will certainly tend to increase the ulceration and the probable formation of a fistula connected with the trachea. At several post-mortem examinations of cases of malignant disease of the œsophagus I have noted the enlarged caseating and also suppurative condition of the glands round the upper opening of the stomach, and cannot but think that the pressure of a tube in the gullet for a long period would have a tendency to increase the glandular complication, perhaps more so than the mere passing of liquid food through the stricture. 2. Because in my experience the tube cannot always be tolerated, and when it is, it is very inconvenient and reduces the patient to a very helpless condition. 3. Because if an attempt is to be made to prolong life, gastrostomy will probably have to be resorted to at last, and then the operation is not performed under the most favourable conditions.

III. *Gastrostomy.*—Accepting the plan now universally adopted, of dividing the operation into two stages—that is, waiting for adhesion of the stomach to the abdominal



parietes before opening the viscus,—we will discuss the various methods now employed of obtaining firm adhesion.

1. *The simple suture.*—The stomach, having been exposed, is secured by four or more silk or wire sutures on each side to the edges of the abdominal incision. Mr. Bryant[3] thinks this is sufficient. In some instances it undoubtedly is. In a case sutured in this manner by my colleague, Mr. Jolly, a fatal termination occurring at the end of five days from pneumonia, the adhesions found at the post-mortem were enough for practical purposes. At the same time it must be borne in mind that the broader the surface offered for the approximation of the anterior stomach wall and the peritoneal lining of the abdominal wall, the better the chances of obtaining the desired adhesions. The simple suture does not offer a very broad area for adhesive formation, and if severe efforts at vomiting occur after the operation anxiety may arise as to its stability.

2. *A double row of sutures*, as introduced and advocated at one time by Mr. Howse. The outer ones, seven or eight in number, after passing through the anterior stomach wall, are made to pierce the parietes three-quarters of an inch from the margin of the abdominal incision, and secured externally by a piece of bougie or button. The inner ring, three sutures on each side, fasten the stomach wall to the edges of the skin. It must be evident that this plan offers a large surface of the stomach for adhesion, and great security if the organ must of necessity be incised for feeding purposes within twenty-four or forty-eight hours of the completion of the first step of the operation. As in the majority of cases this necessity ought not to present itself, and the application of the double row in actual practice will be found to be rather a tedious performance, Mr. Howse has recently advocated another plan.

3. This consists in clamping the anterior wall of the stomach with forceps sheathed in indiarubber, and which by their weight pull forward the viscus and keep it in position without the aid of stitches. The compression is not severe enough to cause sloughing of the stomach wall, and the forceps are left *in situ* for seven or eight days. This method has been successfully carried out by Mr. Howse.

4. This method may be called "the gather or running stitch." (See diagram.) It is very simple in its application, and in three cases in which I have employed it has proved effectual. It consists of three or four sutures passed transversely through the peritoneal and muscular walls of the stomach and out again three or four times, and piercing the abdominal parietes on each side about two inches beyond the edges of the incision. By tightening the sutures so introduced the edges of the primary incision are brought into apposition, and the anterior wall of the stomach pulled up and maintained in close contact with the parietes, leaving only about half an inch of the viscus exposed, to which the silver wire suture, introduced longitudinally at an early date of the operation and left protruding, is a guide for the subsequent puncture.

5. *Mr. Boyce Barrow's method.*[2]—The stomach having been exposed, a portion of its anterior wall is pinched up by the fingers of the operator. Two good-sized hare-lip pins are made to transfix it, seemingly through its whole thickness, in a direction transverse to the skin wound and about half an inch apart. The projecting ends of the pins are carefully protected by indiarubber. Catgut sutures are then used to bring the deep peritoneal and superficial parts of the wound closely round the pins and protruded portion of the stomach. No sutures are introduced into the viscus itself. The operation in the case in which it was first performed was completed on the tenth day, and the patient lived for three months afterwards. The advantages claimed for this plan are that it is very simple and quickly performed, and the stomach, it is thought, may be opened early if needed, without fear of extravasation. The only objection I can imagine is that the passing of the pins may result in the formation of additional gastric fistulæ, as they must be of a good size and allowed to remain until after the completion of the second part of the operation.

We will now proceed to the details of some cases in which the operation has been undertaken.

Hugo R——, aged fifty-six, labourer, was admitted into the General Hospital on March 14th, 1884. Ten months previously he noticed that the throat felt sore, that swallowing was accomplished with some little difficulty, and that solid food regurgitated. This was followed by an interval in which liquids could be swallowed pretty easily, and then again difficulty occurred. The exact position of the obstruction seemed opposite the top of the sternum. On March 11th the patient's neck began to swell on both sides, and as this was accompanied by complete inability to swallow nourishment he became an inmate of the hospital. On admission the man was emaciated, and efforts at swallowing caused much pain in the throat. No glandular enlargement to be felt in the neck. The passage of an œsophageal bougie was obstructed at a point opposite the top of the sternum, but a No. 11 tube was passed into the stomach. The relief caused by this step was most marked. Swallowing now became comparatively easy, so much so that the patient declined any further operative interference; he therefore left the hospital on March 19th. In June he was again admitted, the obstruction being complete and the wasting more apparent. On the 14th laparotomy was performed by means of a longitudinal incision parallel to the edge of the left rectus muscle. The stomach was secured to the abdominal wall by means of three running sutures. The patient never complained of much pain, and his highest evening temperature was 101°, that in the morning never falling below normal; still there was slight distension of the abdomen, and a more or less persistent pulse of 100, with a thready tendency. Pulmonary irritation was marked from the time of the recovery from the ether. Nourishment was administered by means of pancreatised enemata, not always well borne, and on the

[3] The Practice of Surgery, fourth edition, vol. i.

[2] Paper read before the Medical Society of London, session 1884-5.

second day in very small quantities by the mouth. All the stitches were removed by the fifth day, and on June 20th the stomach was incised and a tube introduced for feeding purposes. Three days later the outer portion of the lowest stitch-hole sloughed, and a fistulous opening, the size of a large pin's head, communicated with the stomach. This was the result of the suture having been passed too deeply and penetrating the mucous coat. The man died exhausted on July 1st.

Pathologist's report.—Body much wasted; hardly any subcutaneous fat. Heart healthy. Lungs: Old pleuritic adhesions on the left side; hypostatic pneumonia of the right base. Liver congested; universal peri-hepatitis. Kidneys: Right normal; left intensely congested. Intestines: There was found some matting together of the intestinal coils by flakey lymph, especially in the left iliac region where there was reddening, but no ulceration; about half a pint of semi-purulent fluid was present in the peritoneal cavity. Stomach: This was adherent firmly to the abdominal wall, over an area of some two inches in diameter. The organ had been incised close to the pylorus, and had very thin walls, the mucous membrane looking as though considerable atrophy had taken place. The whole cavity appeared somewhat dilated, and at the cardiac end presented much capillary ecchymosis. Œsophagus: Has a large deep ulcer four inches long, reaching to within one inch of the cardiac end of the stomach, and on the average involving three-quarters of the circumference of the tube, except at the upper end, where a small strand one-eighth of an inch wide was all that remained of the mucous membrane. The edges were deeply undermined, especially the upper and lower ones. There were no granulations visible, the ulcer having an entirely necrotic appearance. The wall of the tube was injected and thickened. The lumen was smallest at the upper limit. The neighbouring lymphatic glands were mostly pea-sized, tough, but not caseous or indurated.

The causes of death after gastrostomy may be said to be—(1) shock, (2) peritonitis and exhaustion, and (3) bronchopneumonia. In the last two and a half years gastrostomy has been attempted six times for carcinoma of the œsophagus at the General Hospital; of these, three cases fell to my lot.

First Case.—Man, aged fifty-eight. First stage of operation, May 15th, 1883; stomach secured by a single row of sutures. Died in five days. Stomach unopened. Cause of death, exhaustion, lobar pneumonia.

Second Case.—Man, aged forty-five. First stage of operation, May 29th, 1883; stomach secured by a double row of sutures; incised eleven days later. Died ten weeks after first operation. Cause of death, exhaustion. A large cavity containing nearly a pint of pus was found lying between the lobe of the liver and the stomach wall.

Third Case.—Man, aged fifty-two. First stage of operation, Oct. 30th, 1883; stomach secured by gather stitches; incised ninth day. Died Nov. 26th, 1883. Cause of death, lobar pneumonia. (Weight of patient two days before death, 5 st. 8½ lb.

Fourth Case.—Man, aged fifty-six. First stage of operation, June 14th, 1884; stomach secured by gather stitches; incised fifth day. Died July 1st, 1884. Cause of death, subacute peritonitis, pneumonia, exhaustion.

Fifth Case.—Man, aged fifty-two; operation completed Aug. 30th, 1884; stomach secured by a single row of silver sutures; died Aug. 31st; cause of death probably shock; lobar pneumonia of right base.

In four of these five fatal cases pneumonia was found at the post-mortem examination. Abscess in one, probably due to perihepatitis; subacute peritonitis in one also. In the case where it was found necessary to complete the operation at one sitting in a worn-out patient, the shock necessarily attending the procedure was not recovered from.

The sixth case is now before you, the details of which are as follows:—

Thomas M——, aged fifty-six, a cab-driver, was admitted into the General Hospital on July 18th, 1885. Four months before admission he first felt something sticking in his throat, this being accompanied by a difficulty in swallowing solid food. A few weeks afterwards he perceived a small kernel, the size of a marble, on the left side of the neck, just below the angle of the jaw. This growth increased in size, and immediately before admission the voice became husky and the breathing embarrassed on the slightest exertion. No food of a solid nature had been taken into the stomach for a week, and but very little milk. The patient had steadily lost flesh from the date of his earliest symptoms. The family history tells that one brother died of cancer of the breast, and within the last fortnight his sister from uterine carcinoma. On admission the man was emaciated, had a husky voice, and dyspnœa on exertion. On the left side of the neck a hard infiltrating glandular mass presented. A moderate-sized bougie introduced into the œsophagus was stopped six inches from the teeth, and on withdrawal bore traces of blood and granulation tissue. The pupil of the left eye was contracted to the size of a pin's head, owing to the pressure upon the cervical sympathetic nerve. On July 28th the first stage of gastrostomy was performed. Three gather stitches were introduced. Pancreatised enemata was ordered every third hour. On the 29th ice was sucked to relieve the great thirst. Had slept nearly eight hours the first night, and felt very little pain. The highest temperature recorded took place on the second evening—viz., 101·4°. On the 30th two ounces of milk and soda-water, besides ice, were administered by the mouth. The gather sutures were removed on July 31st, August 1st and 3rd respectively. On August 5th the stomach was opened and food introduced through the fistula. On the 9th the patient sat up. The nourishment taken during twenty-four hours was forty ounces of milk, ten ounces of beef-tea, two ounces of port wine, the meat (minced) from a chicken's breast, and three eggs. Weight: August 30th, 8st. 12lb. (had gained 8lb.); Sept. 14th, 9st. 7 lb.; Oct. 12th, 9 st. 3½ lb.; Nov. 23rd, 9st. ½ lb.; (Dec. 7th, 8st. 10½ lb.) The patient's swallowing has greatly improved since the operation, and now nourishment passes freely into the stomach "after sticking a bit" (to use the man's expression). On the other hand, the breathing is considerably interfered with, the cervical growth still increasing, and there is much stertor and cyanosis when sleeping. Occasionally also during the day there is a good deal of dyspnœa.[4]

The question which we have to consider is the advisability of the surgeon strongly recommending gastrostomy to those of his patients who are better educated and able themselves to grasp the facts of the operation. I would place on one side entirely the cases of fibrous stricture of the œsophagus; in such patients the results of gastrostomy are frequently most gratifying. In cancerous disease it is otherwise. The *raison d'être* of the operation in such I take to be (1) to prevent suffering, and (2) to prolong life. To be of any real service, therefore, the stomach should be opened as soon as the diagnosis is complete, and before the vitality of the individual is enfeebled. With our patient in fairly good health, not much pain, and only moderate discomfort, is it just to urge an operative measure that is not altogether free from risk, is certainly painful in more ways than one, and when successful affords no permanent relief and always more or less persistent discomfort? It is true a success may be a source of satisfaction by preventing the acute pangs of starvation becoming dominant, and the painful results consequent upon the formation of a fistula between the œsophagus and trachea. The prolongation of life itself is, after all, only a matter of a few months, and is such an existence desirable? Possibly it is a matter that an intelligent patient ought to decide for himself, after the ungarnished facts have all been placed before him by the surgeon. He may, if supplied with the luxuries of life, elect to bear, aided by the palliatives of the milder forms of treatment, until the unbearable be reached, and then seek relief by other means than those afforded by surgery. With those in the humbler walks of life it is perhaps better to operate early, and to maintain, and from time to time to utilise, the gastric fistula, retaining the cases under one's personal supervision. It appears more humane to adopt this course rather than expose them to the uncertainties of their own rude fare, the surroundings of their questionably comfortable home, and the want of constant and adequate nursing and professional care.

[4] The man died in hospital on Jan. 23rd, 1886, with double pneumonia. For the three preceding weeks nourishment could only be taken through the fistula. He repeatedly expressed himself "tired of life."

HOSPITAL ACCOMMODATION FOR MERTHYR TYDVIL.—Although the population of this union exceeds 100,000, there is at present no public hospital at Merthyr Tydvil. The Marquis of Bute has intimated his willingness to subscribe £1000 towards the erection of a suitable building to be devoted to such a purpose, provided that at least a sum of £2000 is subscribed by others interested in the parish.

THE DARWINIAN "WORKING HYPOTHESIS OF EVOLUTION" EXAMINED PHYSIOLOGICALLY.

BY T. WHARTON JONES, F.R.C.S., F.R.S.

ACCORDING to the Epicurian doctrine recited by Lucretius in his poem "De Rerum Naturâ," "it was not by design that atoms framed the world; but after many fruitless collisions they chanced to fall into such motions as produced the world and all that is in it. At first monsters of all kinds were formed, which could not grow up nor continue their kind. They all therefore perished off." "The members and organs of the body," further said Lucretius, "were not formed by design, but having been formed, came to be applied to the uses for which they were found adapted." Whilst Epicurus thus taught that organised structure determined function, M. Lamarck, in his "Philosophie Zoologique," published in France about eighty years ago, formulated a scheme of evolution, according to which "it was not the form of the body or of its parts which gave rise to the habits and mode of life of animals, but, on the contrary, it was the habits and mode of life, together with other influences, which have in the course of time—ages and ages—determined the form of the body and parts of animals." Nay, new organs having become necessary in consequence of new wants, efforts were made by animals to acquire the desiderated organs, and so, according to Lamarck, they came into existence! In a similar strain, Dr. Erasmus Darwin, in this country, argued that the acquisition of new organs in the course of the evolution of animals was the result of their own *nisus* or endeavour to obtain what they longed for! The late Mr. Charles Darwin, grandson of Dr. Erasmus Darwin, objected to the scheme traced out by Lamarck, as affording no explanation of the process by which organised bodies have been evolved from the lowest to the highest. The efficient cause in operation, according to Mr. Darwin's own view, has been what he designated "natural selection"—a process described by him as follows: "Amid the struggle for existence which has been always going on among living beings, variations of bodily conformation and structure, if in any degree profitable to an individual of any species, *will* tend to the preservation of that individual, and *will* generally be inherited by its offspring. Thus is 'survival of the fittest' the condition for 'natural selection.'"

This formula of evolution by "natural selection, by survival of the fittest in the struggle for existence," seems, in reality, no more than what Epicurus taught in Athens, and after him Lucretius sang in Rome, and is no explanation, but merely a form of words without any basis in fact. I have, however, seen it somewhere actually stated that Mr. Darwin *discovered* natural selection—an amusing example of confusion of ideas respecting the difference between *discovery* and *invention*. The fundamentally similar construction of the human arm and hand, for example, the forelegs and feet of quadrupeds, wings of bats, flappers of seals, paddles of whales, and wings of birds, is, argued Mr. Darwin, inexplicable on any other supposition than common descent. All this, again, it must be affirmed, is a mere conceit, a conclusion without premisses. Such similarity of plan in the construction of their organs does not logically prove that the different races of animals have been evolved, the highest from the lowest, in the manner alleged. The process of change in the course of ontogenesis or the development of the embryo from the ovum to the state of the grown animal comprises a *differentiation* of structure; but, let it be particularly remembered, this *differentiation* is a *real* and *observable* development, and must not be confounded with the *imaginary* differentiation by transmutation, arbitrarily assumed by evolutionists to be the process of change in what they call *phylogenesis* or evolution of the line. Any variation in the development of an embryo, whether by excess or defect of the normal structure which may take place, is merely a monstrosity. In main features, the early human embryo does not, at first glance, seem to differ much from the correspondingly early embryo of a dog, for example; but notwithstanding this, they differ potentially from each other. By virtue of internal qualities and hidden power, the two somewhat similar aggregations of cells are at last unerringly developed—the one into a man and the other into a dog.

That races of living beings have had their form and structure, and consequently their functional endowments, transmuted by *natural selection* or any other imaginary process of evolution in a long course of ages, and that they have thereby become different from the organisms whence they sprang, are propositions not supported by any legitimate induction from facts. In the metamorphoses of the frog we can observe how the limbs and lungs make their appearance, and how the tail and gills of the tadpole disappear, so that the animal from being virtually a fish comes to be an air-breathing batrachian. These changes of structure and function constitute natural stages in the ontogenesis or process of development of the individual. The hind legs are first formed and assist the tadpole in swimming; but when the fore legs become, in due course, free, and the animal thereby fitted for progression on land, the tail, which was previously the organ of progression in the water, shrinks and disappears, while the gills for respiration in water are superseded by lungs for breathing air. In consequence of the diversion of the circulation of the blood from the tail, it becomes atrophied and reduced to a crust, which eventually falls off; the tail is not detached bodily, as commonly alleged. In a similar manner, the gills disappear by becoming atrophic in consequence of the diversion of the circulation of the blood from them to the swimming bladder now becoming lungs. All this process of metamorphosis, let it be repeated, constitutes an invariable stage in the ontogenesis or natural course of development to the frog state, and is no exhibition of a differentiation by transmution, such as is assumed to take place in what is called phylogenesis or evolution of the line. The transitional resemblances of form, the homologies and analogies of structure observable in the different races of organised beings, cannot, then, be admitted as indicative of any such thing as a proof of progressive evolution whereby plants or animals have by chance, or spontaneously, or by natural selection, whichever you choose to call the conceit, been transmuted from a lower to a higher grade of organisation with corresponding elevation of endowments. Though there is a resemblance among organic forms so far as to indicate a unity in the plan of the whole, a line of demarcation circumscribes, and has circumscribed so far as our cognisance truly extends, each kind or form.

An exposition of the affinities, the homologies and adaptations of structure throughout the organic kingdoms, is a great aim of philosophical anatomy; and the subject has been long ago pretty successfully worked out, even to the discovery of new facts and to the tracing of the transition between invertebrates and vertebrates (a transition, however, not through an ascidian mollusk, as Mr. Darwin fantastically thought he had discovered); but how well made out soever the affinities, homologies, and adaptations of structure may be, and how valuable a key soever to the discovery of new facts the knowledge thereof has proved, their demonstration does not and cannot, from the very nature of the question, help to confirm scientifically the doctrine of evolution; it is a mere sophism to argue otherwise. The question is one beyond the pale of science, and any addition of facts of the kind appealed to will still fail to fill up the proof.

A word about nucleated cells. The nucleated cell is a microscopical corpuscle of albuminous nature in respect to substance, and in respect to structure comprises two distinct parts—viz., protoplasm and nucleus. These two parts are usually enclosed within a membraneous wall—a third element of structure; but this cell-wall, though it has given name to the whole corpuscle, is found not to be a constant or essential part of its structure. A lower phase of living, or at least *viable*, existence than the nucleated cell is found in the *cytode*—a shapeless mass of protoplasm without a nucleus, and which is assumed by evolutionists to have originated by spontaneous generation. Though originally homogeneous in composition, structure, and endowments, cytodes, nucleated cells, and tissues developed from them, have come at last, according to evolutionists, to form, by a process of differentiation, the various kinds of *corpora viva*. In contradiction of this, however, it is important to remember a fundamental principle in the biology of cells, a fundamental principle overlooked or ignored by evolutionists—viz., that cells are of various kinds, each kind possessing its own peculiar vital endowments and its own mode of further development. One kind of cells does not

give origin to another kind of different endowments. There is no such thing known as *differentiation* in the sense in which evolutionists have come to employ the term—viz., transmutation of endowments as well as of substance and structure—comparable to the transmutation of baser metals into gold, as pretended by the alchemists. Here I may repeat the remark made in my article on the Ova of Man and the Mammifera, that "differentiation" is a word which was imported by Professor von Baer into the vocabulary of development, but which has since come to be illogically usurped by evolutionists, as if, instead of merely indicating steps observable in the development which goes on before our eyes, it represented a *real fact* in proof of the evolution of organised and living beings from the lowest to the highest in all their various species, genera, and classes throughout millions of years—a phylogenesis which they fancy and gratuitously assume to have taken place.

The truth is, all that we know of cells is that they run through the different phases of growth and development proper to them, each kind according to its own fixed destiny. Granting any number of generations through which cells may be supposed to have descended, the evolution argument is not thereby strengthened or confirmed. When, by virtue of their own original intrinsic qualities, differently composed and endowed cells are, under the appropriate conditions, developed into tissues, each kind in its own proper way, the process is truly one of "differentiation" in the sense in which it was first employed in embryology by von Baer, but there is certainly no such process in nature, if by the expression is meant the development by transmutation of different kinds of tissues from one and the same kind of cells by their own desires and efforts with the resulting formation of new organs with correspondingly new endowments. The reality of such an imaginary process is, in fact, the very point to be contested, as the false foundation on which the superstructure of evolution has been in a great measure built.

Though resembling each other in their general characters, organic cells, let it be repeated, are of various kinds, each kind possessing its own peculiar endowments, physical and vital, and its own mode of further development into tissues and organs. One kind of cells cannot give origin to another kind with different endowments, nor be developed by the chance of circumstances into this or that kind of structure. Cells react vitally under varying conditions, but each kind only in its own way. If the conditions be unusual, the cell still reacts after its own manner, according to its inherent potentialities, so far as the unusual conditions permit. Cells may, indeed, become morbid, languish, and die under the influence of unfavourable conditions, but they never react in such a way as to be converted by transmutation of substance or evolutionary *differentiation* into some structure and organ of a fundamentally different nature from that which is normally the product of their development.

The elements in respect to shape composing the various tissues of the organs of a *corpus vivum* are formed out of the substance of cells, their nuclei, and intercellular substance; and though thus similar in the mechanism of their development, organs differ from each other, not only in shape and structure, but also in endowments, physical and vital—a necessary result from their component tissues being developed each from its own kind of cells. In short, the various cells, though they may resemble each other in external aspect and general points of structure, and the endowments thereon depending, are intrinsically different in their potential vital qualities. No transmutation, therefore, can, under any circumstances, take place of one kind of cell into the structure which is the proper product of the development of another kind of cell; nor can one kind of glandular cell elaborate the secretion which is produced from another kind. That the peculiarly endowed brain cells of man could ever have been evolved in the course of any number of generations throughout millions of years from the differently endowed brain cells of lower animals, is the merest fancy, as is, of course, also that any increased mental activity of an ape could have led to the evolution of the human mind.

Admitting that the nature of the physiological factors to which evolution is due is still open to discussion, and thus quietly giving up the form of words excogitated by Mr. Darwin to designate the efficient cause of evolution—viz., natural selection by survival of the fittest—evolutionists now fall back upon the palæontological facts disclosed by geology as decisive historical proof that evolution has actually taken place. For example, the one-toed horse of the present day was preceded on the earth by a three-toed horse, and it is assumed that the former has been evolved from the latter by the suppression of the phalanges of its rudimentary toes and other slight modifications. But supposing, for argument's sake, this descent of a one-toed from a three-toed horse, it would go a very little way in support of the doctrine of evolution by transmutation of structure and endowments, such as the evolution of the human brain from that of apes. Children are sometimes born with six toes, and reproductions of the malformation in the family are not uncommon; but herein we have no example of a new and improved edition of the breed. In regard to the three-toed fossil hipparion, we may indeed recognise in its bones and teeth characters indicating a near relationship to the horse tribe of the present day. We may also recognise, on the other hand, in the embryo of the said tribe indications of a three-toed development; but to say, for that reason, that a horse, a zebra, or an ass has been evolved from the prehistoric hipparion by natural selection, by survival of the fittest, is a logical inconsequence. All that palæontology teaches us is that various organic forms have in succession lived on the earth in the course of long periods of time, and that such forms, in like manner as the various forms of the present day actually do, exhibit in their fossil remains a close resemblance to each other in their transitional homologies. Herein it is obvious that we have no logically scientific proof that the organic forms, of which the fossil remains are first found in the strata of a later geological epoch, had been any one of them (e.g., the horse-tribe of the present day) evolved by transmutation of structure and endowments in fortuitous succession from a different form—e.g., the hipparion, of which the fossil remains are found in strata of an earlier geological period. This fallacious attempt to prove the validity of evolution by an appeal to palæontology is not to be confounded with the perfectly logical endeavour of Cuvier to construct from the study of fossil bones and teeth as data an anatomical and physiological history of the animals, of which the said bones and teeth are the actual remains. If, in the alleged evidence from palæontology, we had really a logical proof that evolution of organic forms in the manner contended for has actually taken place, it would then not be so difficult to understand the nature of the physiological factors in operation, even though the process may have been one requiring millions of years for its accomplishment. We should, however, have to admit that one kind of cells can give origin to other kinds which may be developed by the chance of circumstances into this or that kind of structure with this or that kind of endowments. The process in such a case would be similar to that in the development of the frog, as above described, but taking place fortuitously with the superaddition of differentiation by transmutation of structure and endowments.

In regard to the evolution of mind and language Mr. Darwin gave utterance to the speculation that the continued use of language has led to the evolution of the intellect, notwithstanding that it is self-evident language presupposes already existing intelligence as well as the proper organs of voice and speech. Then, again, it may be asked did the *nisus* to speak lead to the evolution of the organs of voice and speech, or did speech follow the fortuitous evolution of the organs? Leaving such *nisiseries* aside, let Professor Max Müller speak:—"The words in all languages," says he, "are built up from comparatively few roots, so that the whole question of the origin of language narrows itself into the problem of the origin of roots. All living things are built up of small cells, and evolutionists are anxious to picture cells uniform from the beginning. Roots of words are the cells of philological science, but the philologist sees no evidence that their number can be much reduced, or that they can possibly be traced to a single source. Roots are neither interjections nor imitations of the sounds of nature, and it is utterly impossible that they could have been formed till the animal began to generalise from observed facts and began to have the power of counting. The intellect and the language of man began at the same time, so there must have been a definite and distinct line at the outset separating man from the lower animals."

Postscript.—In the *Nineteenth Century* for November there is an eloquent article by Mr. Gladstone on the "Dawn of Creation and Worship," which has called forth a reply in the same magazine for December by Professor Huxley.

under the title of the "Interpreters of Genesis and the Interpreters of Nature," to which, in the January number, Mr. Gladstone has published a rejoinder under the title of "Prœm to Genesis—a Plea for a Fair Trial."

Mr. Gladstone's aim is to vindicate the inspired authority of Genesis against Dr. Réville's "Prolegomena to the History of Religions." Admitting that the Mosaic account of the sequence of creative acts is not quite borne out by the observed facts of geology and palæontology, but recognising the "days" as geological periods, he contends that the two accounts are in sufficiently substantial agreement. Though not formally impugning the Darwinian doctrine of evolution, he objects to it as not affording any solution of the great *arcanum of creation*, seeing that a merely corporeal evolution would not account for the origin of mind and spirit. Besides this, he protests against the doctrine on account of the atheism involved in it.

Mr. Huxley's reply, in correction of Genesis, and in opposition to Mr. Gladstone's views, comprises a scientific exposition of the observed facts of geology and palæontology relating to the succession in the appearance on the earth of the various kinds of plants and animals. This exposition, however, does not prove the validity of the Darwinian hypothesis of evolution, which, notwithstanding all that has been said for it, still remains unverified and unverifiable. See page 68 of my lectures, entitled "Evolution of the Human Race from Apes and of Apes from Lower Animals—a Doctrine unsanctioned by Science" (1876). From this volume I may here, in conclusion, quote the following passage: "It is commonly assumed by evolutionists, and tacitly granted them, that there are only two fundamental alternatives between which a definite decision has to be made—viz., revelation or evolution. But this I emphatically deny. Unbelief in revelation and a personal Creator is no doubt the alternative of the admission of evolution, but admission of evolution is not the necessary alternative of unbelief. Excluding all belief in revelation and a personal Creator, for argument's sake, I hold that the doctrine of evolution, unsanctioned, as I believe I show it to be, by science, cannot be accepted as the alternative on any consideration, and must therefore be unconditionally and absolutely rejected."

A NOTE ON ABDOMINAL SECTIONS.

By W. F. WADE, F.R.C.P.,

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THE mention of my name in Mr. Lawson Tait's paper on Cholecystomy reminds me of a purpose which has been for some time in my mind. I wish to address a few words to those who, like myself, are exclusively, and to those who, as general practitioners, are chiefly, engaged in the treatment of medical as distinguished from surgical cases. Before us, acting in this capacity, cases come which no doubt are in their inception properly catalogued as medical, and which a few years ago would have remained so to their termination. Medicine might fail, but surgery had nothing to offer. That is not so now. The Birmingham school of gynæcological surgeons has increased the resources of civilisation, and their fellows elsewhere are, somewhat slowly and reluctantly perhaps, following in their footsteps. But the sick public will not have the full benefit of these new resources till we who practise medicine give our fiat and sanction to them. Ought we to do so? I am not a surgeon, and therefore am not swayed by a desire to operate whenever an operation is possible, as some suppose habile operators to be swayed. On the contrary, I feel always a certain amount of chagrin when compelled to say, "Medicine is powerless, but surgery is not." Yet I feel obliged to admit that in some cases, which, as already pointed out, have up to now been regarded as exclusively medical, our efforts ought to be supplemented or supplanted by those of the surgical operator. Another question now naturally arises: In what class of cases, and to what extent in that class? This is a question which I regard as still *sub judice*. Instead, then, of attempting to give a direct answer, for which the time has not yet come, I will very briefly narrate four cases which have happened to me in the ordinary course of private practice within the last six months, in which I suggested the advisability of abdominal section, and in which, in accordance with that advice, it was performed.

1. The patient mentioned by Mr. Tait. An elderly lady had for more than a year had at intervals symptoms of the passage of gall-stones, severe pain requiring morphia, and jaundice; perfect recovery in the intervals. For some weeks before I saw her the intervals had been so shortened that the jaundice of one attack had not time to disappear before the next occurred. Her appetite and strength were failing, so that her condition was becoming precarious. She was believed to have had about 100 attacks. I told her that she might have a hundred or two more stones to pass, and that before the bladder was emptied she might perish from exhaustion; that I considered she was in greater danger from this than she would be from an anæsthetic and the operation. The latter risks I therefore advised her to accept. I have never seen her since, but heard that she had decided to do so, and had placed herself under Mr. Tait for the operation, the result of which he has given in THE LANCET of the 13th inst.

2. A child six years of age was attacked with abdominal symptoms of a mild character, fairly supposed by the family attendant to be due to gastro-intestinal disorder. After three days he one morning became suddenly much worse. As I happened to be away all day on a country journey I did not see him till late at night. He was then in a condition which must pretty evidently be fatal, and which indicated the existence of peritonitis. I advised that the only chance left for him was to have his abdomen opened. This was done by Dr. Malins, and a good many ounces of most abominably fetid pus escaped. He was more comfortable after the operation, but died in about twenty-four hours, and I do not know that his death was either delayed or hastened by the operation. But I assume that a person is more likely to recover without than with a quantity of fetid pus in his abdominal cavity.

3. A boy of twelve was much reduced by peritonitis of three months' standing, and consequent hectic. On the right side of the abdomen, about the ileo-cæcal region, was evidently a collection of what we presumed to be pus. There was on the corresponding left side (where the inflammation had begun) tenderness, but no evident collection. I advised the friends that it would probably be necessary to open the abdomen. But as they were anxious to avoid this if possible, we agreed to have a further trial of medicine, and gave him some syrup of the iodide of iron and some conium. He improved as to general condition, but after a second relapse, the local conditions remaining unaltered, I pressed them to consent to an operation, which they did, and Mr. Tait opened three loculi containing pus, one on the right side, one on the left, and one deeply seated towards the back. There was an immediate return to normal temperature, but there have been two recrudescences of fever, and the case, which it was all along feared might be of a tubercular character, is still in abeyance.

4. A female of about thirty, married, was said to be suffering from peritonitis. This was undoubtedly so, and her aspect, pulse, temperature, and vomiting showed that she was in a very serious condition. She referred her subjective symptoms to the upper part of the abdomen; they had existed severely for several days. But on further inquiry there was a previous history of pain for several days of a slighter character, and in the left ovarian region. Vaginal examination showed a good deal of fulness and extreme tenderness to the left of the uterus. I came to the conclusion that the original seat of disease was the left uterine appendages, and that there was very probably pyo-salpingitis. I advised that if the symptoms did not abate, and still more if they increased, the abdomen should be opened and this region explored. This was done about a fortnight after by Dr. Savage; the appendages were with difficulty removed; the ovary was enlarged and inflamed, and pus was found in the Fallopian tube. The patient did well.

These cases admit of, and indeed suggest, plenty of discussion, comment, and criticism. But into this I do not propose now to enter, my present object being only, as stated at the outset, to show that there are cases hitherto supposed to be purely medical, and as such met with in a purely medical practice, which do admit of, and in my opinion require, surgical interference. These cases were, it will be noticed, treated by gynæcological surgeons; but at least two of them any good general surgeon—one, for example, who would not hesitate to operate for strangulated hernia—ought to be quite prepared to undertake.

ON THE CAUSE OF HEPATIC ABSCESS.

BY H. BLANC, M.D., F.R.C.P.

SURGEON-GENERAL MOORE, in THE LANCET of Oct. 31st, 1885, correctly refutes the views held by Dr. Harley in his interesting work on Diseases of the Liver regarding the cause of hepatic abscess, which Dr. Harley too exclusively attributes to "gluttony and intemperance." I also concur with Surgeon-General Moore in his statement that natives of India are quite as liable to hepatic abscess as Europeans. On this point I am able to speak from personal knowledge, having, during my ten years' residence in the town of Bombay itself, held appointments in both the native and the European general hospitals. But whilst joining with Dr. Moore in repelling the general charge of "gluttony and intemperance" as the principal cause of hepatic abscess among Europeans residing in India, still it must be confessed that intemperance is frequently noted in the previous medical history of both natives and Europeans who suffer from hepatic abscess, and although overfeeding is much less common, yet we frequently find among these patients the habitual use of hot-spiced food as a diet.

Hepatic abscess is rarely met with in Bombay among the better class of European residents, and although I had many opportunities of seeing such cases, had they existed, I can scarcely remember, during a period of some ten years, more than half a dozen cases among this class of people. On the other hand, hepatic abscess is not unfrequently met with among the inmates of the European General Hospital. As physician in charge of that establishment, a certain number came under my care; and from my notes I find that during the last two years, or thereabout, I actually operated upon sixteen cases; moreover, during the same period, a certain number came also under the care of my able colleague, Dr. Manser. The table herewith appended shows that most of the cases therein recorded (the only ones I have by me) occurred among individuals who by their occupation were subjected to much exposure, and although some are entered as "temperate," their temperance was but relative; the work which many of them had to perform was a "thirsty one," and most of them considered a few bottles of beer and a few glasses of brandy daily, so long as they did not actually get drunk, as quite compatible with temperance.

I do not think that "a chill," as advanced by Surgeon-General Moore as the cause of hepatic abscess, is in reality a frequent cause of that disease—an occasional cause no doubt it is, but nothing more. The climatic condition insisted upon by him—i.e., daily great variations in temperature, is not special to India by any means. If hot days and cold nights were such a powerful cause of hepatic abscess, then that affection would not be limited, or nearly limited, to tropical lands; for instance, in the south of France, where I am now residing, at this season of the year the extremes of temperature between the hot sunny days and the cold, sometimes frosty, nights, are greater and more marked than in Bombay itself during the winter there, and yet hepatic abscess is totally unknown here! A great authority on tropical diseases, Sir Joseph Fayrer,[1] speaking of the causes of hepatic abscess, says: "They appear to be a result of climatic causes, to which some constitutions are more prone than others, and in certain instances aggravated, no doubt, by injudicious eating and drinking, though it may happen in those who have observed the greatest moderation." My own experience leads me to the same conclusion.

Among the climatic causes, those to which malarious fevers are due stand also foremost as the cause of hepatic abscess. We find usually in cases of hepatitis, whether ending in abscess or otherwise, a previous history of malarious fever, and it is quite exceptional to meet with individuals who have never suffered more or less recently from malarious fever, or who have not at least resided for a length of time in highly malarious localities. Among malarious fevers the remittent type is the one most frequently followed by hepatic abscess. During the prevalence of this fever the liver is always somewhat congested, at times very much so; and if the patient is one "more prone than others," congestion passes into inflammation, and in many instances an abscess follows. Among the eighteen cases of hepatic abscess here given, malarious fever existed previous to the appearance of the abscess in no less than fifteen cases. The three exceptions are: (*a*) a man who, according to his own statement, was very intemperate; (*b*) a man also very intemperate, and who had been exposed for days to the dreadful heat of the engine-room during the hottest month in the Red Sea; (*c*) a man who, though he stated that he was temperate, gave physical signs of alcoholism—i.e., a tremulous tongue, sleepless nights, &c.; moreover, he had passed a night exposed to the wind and rain.

Another point of interest in these cases is the season during which they occurred. In Bombay the so-called "cold weather" scarcely ever sets in before the middle of December, lasting only until the first days of March. If cold nights, alternating with hot days, is the cause of

CASES OF ABSCESS OF THE LIVER, WITH REFERENCE TO CAUSE.

No.	Name.	Age.	Sex.	Occupation.	Previously suffered from malarious fever.	Temperate or otherwise	Month when disease occurred.	Where treated.	Remarks.
1	William S.	22	M.	Railway guard	Yes	Very intemp.	August	Europ. Gen. Hosp.	—
2	William A.	50	M.	Railway guard	Yes	Very intemp.	October	" " "	A previous history of dysentery.
3	Herbert E.	28	M.	Army surgeon	Yes	Very temp.	August	Watson's Hotel	Preceded by bilious vomiting and diarrhœa, the stools occasionally tinged with blood.
4	Daniel M.	48	M.	Pensioner (W. O.)	No	Intemperate	October	Europ. Gen. Hosp.	Occurred suddenly, whilst in good health.
5	William C.	37	M.	Railway guard	Yes	Intemperate	October	" " "	—
6	Anne C.	23	F.	Wife of painter	Yes	Temperate	December	" " "	—
7	George M.	38	M.	Engine driver	No	Very intemp.	November	" " "	—
8	John S.	44	M.	Station master	Yes	Intemperate	November	" " "	—
9	Mariam B.	30	F.	Wife of saddler	Yes	Temperate	August	" " "	A previous history of dysentery.
10	James B.	32	M.	Engine driver	Yes	Temperate	June	" " "	Suffered from severe contusion over hepatic region ten months previously.
11	Rose L.	47	F.	Widow	Yes	Temperate	July	" " "	—
12	George D.	32	M.	Naval engineer	No	Intemperate	October	" " "	Suffered much from intense heat in the Red Sea.
13	Charles M.	42	M.	Naval engineer	No	Temperate	October	" " "	Although he reports himself temperate, the tongue is very tremulous; sleeps badly at night; suffers from a chill.
14	Ralph M.	40	M.	Railway guard	Yes	Temperate	September	" " "	Much exposed to continuous and heavy rain, owing to a break in the railway line.
15	Joseph W.	30	M.	Engine driver	Yes	Temperate	November	" " "	—
16	Alfred S.	50	M.	Engine driver	Yes	Very temp.	February	" " "	Occurred suddenly, after a chill.
17	Charles C.	43	M.	Band master	Yes	Temperate	September	" " "	—
18	Joseph P.	34	M.	Manager of a mill	Yes	Temperate	October	Private house	Lived near a foul-smelling drain.

[1] Tropical Diseases, by Sir Joseph Fayrer, K.C.S.I., &c.

hepatic abscess in India, we should expect to meet with a greater frequency of these abscesses between the middle of December and the beginning of March; but such is not the case. Even among the eighteen cases here recorded two only pertain to the cold season; all the others occurred between the months of June and November, a period characterised in Bombay by an equably high temperature and by the great prevalence of malarial fevers.

Cannes.

CATARACT EXTRACTION PERFORMED ON AN INSANE PATIENT.

BY T. H. BICKERTON, M.R.C.S.

THE following case of cataract extraction may be of some little interest from the fact that it occurred in the person of an insane individual. The patient in question is an inmate of the Rainhill County Asylum, and I have to thank Dr. Rogers, medical superintendent of that institution, for his permission to perform the operation, and also for his permission to mention the case. The history is as follows:—

John T——, aged seventy-one, was first admitted into the asylum in 1868 as a suicidal patient. Between 1868 and 1872 he was twice discharged, and being in the latter year readmitted for the third time, he has remained an inmate ever since. The first note that there is about his vision is in the asylum book for 1876, where the remark is made that he is "gradually losing sight from cataract." His own statement, however, on the matter was that the sight of the right eye had been lost for twenty years. The vision of the left eye gradually failed, and more than twelve months ago he became totally blind, and since then he had to be led about by another patient. The right cataract was of a China-white variety, and as the pupil acted well, and the vision was fair for light and shade, it was considered that there was every probability of a successful result being arrived at. The patient was anxious to be operated on. The eye (right) being made insensitive by two applications of ten drops each, of an 8 per cent. solution of cocaine, the incision was carried as nearly approaching a Graefe's as possible, the wound being entirely in the sclerotic. On making the iridectomy, the lens was seen to be bulging greatly towards the wound; and on dividing the capsule, a sudden gush of fluid showed the cataract to be a fluid one, and carried up with the rush to behind the posterior lip of the wound was a small, hard-looking, red nucleus. Lying now in the pupillary space was the white capsule, and this after one or two attempts was removed entire by means of a pair of iris forceps, its slight adhesion to the posterior surface of the nucleus giving way to gentle side-to-side movements. To depress the nucleus so as to bring its upper margin in front of instead of behind the posterior edge of the wound, where the rush of fluid had carried it, was a matter of difficulty, but this was at last overcome by introducing a sharp needle into the nucleus and pushing it down. Slight pressure being exerted behind the wound at the same time, the upper margin of the nucleus disengaged itself, and presenting through the wound, quickly came out, and the operation was completed. Every means were now taken to keep the patient quiet; he was allotted a special attendant, and as much as possible the importance of absolute rest was impressed upon him. Owing to the capsule being entirely removed—a most unexpected, rare, and fortunate occurrence in this variety of cataract operation—all fear of inflammation of the iris could be dismissed, and one's anxiety was devoted to promoting a rapid union of the wound. All went well for five days, but on the sixth night, during the temporary absence of the attendant, and in spite of all warnings, he strained greatly to relieve his bowels, with the consequence that the wound, when seen the following morning, was opened up and a bead of vitreous was presenting. Firm pressure was then applied, and bark, port wine, eggs, and stout were given to keep up his strength and to promote union. Matters again did well until the twelfth day, when in consequence of his sitting up in bed to get his tea on the previous evening, the outer third of the wound was seen to have again given way. The powers of union being thus so poor, increased stimulation by port wine, stout, bark, and food was given, and every care taken to prevent any further untoward movements on his part, with the result that on the seventeenth day the wound was again united in its whole length, and from this time onward things went well, but it was not until a month had elapsed from the operation that it was deemed safe to allow him to get up. The final result of the operation is a gratifying one. On testing his vision, four months after the operation, for distance, with a + 10 D lens, it was perfect, he being able to read at a distance of 20 feet every letter of Snellen 20; and his near vision was also perfect, he being with a + 14 D lens able to read Jaeger 1 with fair fluency. In fact, with that eye his vision was normal.

In addition to the operation being performed on a lunatic, there are other points of interest in the case—viz., the fluidity of a cataract occurring in a man aged seventy-one, the entire removal of the capsule, and the difficulty that was experienced in attaining firm union. It was the knowledge of the general impairment of nutrition common to the insane, and almost certain to be met with in any man of seventy-one, that induced me to make the incision entirely in the vascular sclerotic, and as far away as was consistent with safety from the non-vascular cornea, and the after-results showed, I think, that this was a wise precaution. Also, I am inclined to believe that the fluidity of the lens lends truth to the old man's statement that the cataract had existed for twenty years, and the dense condition of the capsule, and the ease with which it came away from its usual attachments, corroborate this. This point may be cleared up when the left cataract is extracted and its consistency known.

Liverpool.

NOTES ON HIP-JOINT ABSCESS.[1]

BY EDMUND OWEN, F.R.C.S.,
SURGEON TO THE HOSPITAL FOR SICK CHILDREN, GREAT ORMOND-STREET.

THERE were in the Louise ward of the Children's Hospital at the time that these remarks were put together five cases of hip-joint abscess, all of which had been subjected to the same ultimate treatment.

The occurrence of abscess in the progress of disease of the hip-joint is common enough, but the question as to what had better be done with such abscess cannot always be answered off-hand. The signs of the formation of abscess may be increasing pain, a rise of a few degrees in the temperature chart, a fulness in the upper part of the wasted thigh, and a decline in the general health of the child. But sometimes pus collects without the surgeon's attention being specially attracted to the part, and the abscess is discovered, almost by chance, as an obscurely fluctuating fulness below or in front of the great trochanter, at the origin of the adductors, or just beneath the middle of Poupart's ligament. In the first and second case the pus had probably escaped through the thin posterior part of the capsular ligament, and thence worked its way round. In the last case, a comparatively rare one, it had made its exit through the perforation in the front of the capsule by which the bursa beneath the psoas communicates with the interior of the joint.

Aspiration.—I confess that my experience with aspiration of hip abscess has not been specially satisfactory. Although the instrument used may have been a slender one, still within a few days of its employment pus has been seen leaking from the site of the puncture. In two of the five cases under consideration a disappointing leakage had thus occurred. Nevertheless, repeated aspiration should always start the treatment of hip abscess, unless the inflammatory condition be acute and the pressure symptoms severe. If the pus be thick and curdy the cannula will not serve, and other means must be employed; so also if the re-accumulation of pus be rapid and repeated puncture fail to make headway. Lastly, if aspiration be followed, as it may be, by acute local inflammation and constitutional disturbance, something more is needed.

Incision.—From one or other of the reasons just enumerated the hip-joint abscess in all five children (their ages varied from three to seven years) had to be freely incised by the house-surgeon, Mr. Lewis. From some of the abscess cavities, after the escape of pus, much curdy matter, granular débris, and shreddy material were squeezed or

[1] From reports taken by Dr. Chaffey.

scraped. The cavity was then thoroughly washed out with a solution of zinc chloride or mercuric chloride. Provision was made for drainage, and the neighbouring surface was dusted with iodoform and firmly compressed with pads of wood-wool and bandage. From time to time the cavity was again washed out and fresh pads reapplied. The drainage-tube, that useful but much abused accessory, was discarded at the earliest possible moment. These notes cannot be ended, as reports in THE LANCET so generally are, with the remark that each patient after a thorough treatment made a rapid and complete recovery. That, unfortunately, is not the way of hip cases. But this may be said, that after the evacuation of those abscesses which were unamenable to aspiration, the temperature, which had been high before, generally came down, and that which had been tolerably low before showed little or no disturbance; that the health and comfort of the child improved and the local condition greatly changed for the better; that the wound remained quiet, in some cases discharging thin pus, and in some cases dwindling into a narrow fistula; and that in one case at least the abscess wound was healed within a month.

Night screams.—In two of the five cases it was noted that after aspiration the children ceased to scream at night. Doubtless this was on account of the tension being removed from certain filaments of sensory nerves. The opinion is rather widely held, I think, that starting and screaming at night should be taken as evidence of ulceration of articular cartilage having set in. I doubt, however, if there be any direct association between these conditions. Night-startings may occur without ulceration of cartilage; and, on the other hand, extensive ulceration may exist without such startings. Moreover, ulceration of cartilage may be far advanced, and yet the signs of local and general disturbance may be but slight, the temperature-chart showing hardly any variation from the normal line.

NOTE ON INTERMITTENT ALBUMINURIA.

BY W. M. COLLINS, M.D.

I HAVE lately had under my care three cases of so-called intermittent or transitory albuminuria unconnected with organic disease, and as the subject has recently been treated by Dr. Pavy and discussed in THE LANCET, I desire, as a small contribution to such observations, to give a few particulars of these cases, with special reference to one characteristic symptom they had in common, and which, I believe, may in many instances explain the nature and cause of this disorder. I refer to the presence of large quantities of oxalate-of-lime crystals in the urine.

The patients were young persons, aged respectively twenty-five, twenty-two, and eighteen. The general symptoms, which were very analogous in each case, were nervous depression, a feeling of languor, occasional headache, derangement of the digestion, constipation, and susceptibility to cold. The quantity of urine passed was generally below the normal, the specific gravity varying from 1020 to 1030, and of a deep yellow colour. The amount of albumen varied according to the time of day the urine was passed. It was greatest between twelve and six o'clock, and diminished towards bedtime. In the early morning there was generally only a trace, or it was absent altogether. In two of the cases the albumen used to disappear completely for a few days and then reappear. Microscopic examination exhibited large quantities of oxalate-of-lime crystals along with uric acid. There were no casts. The increase or subsidence of the albumen was found to be in direct ratio to the excess or diminution of the oxalates in the urine examined. I have observed that in the cases reported by Dr. Pavy oxalate-of-lime crystals were invariably found in the urine, but no reference was made as to any probable connexion between the existence of these crystals and the albuminuria.

The following are a few brief particulars of two of the cases which came under my care.

J. D——, aged twenty-five, last May complained of derangement of the digestion, sleeplessness, depression of spirits, lassitude, and a constant feeling of chilliness. The tongue was furred, the complexion sallow and anemic, and the gums and lips pale. The urine, which was high-coloured, depositing urates, and with a specific gravity of 1025 to 1030, was found to contain a large quantity of albumen, and this at first occasioned some alarm, but on testing the urine at different times of the day it was found to be almost free from albumen in the early morning and at bedtime, but in the afternoon there was a considerable quantity. Microscopic examination revealed large quantities of oxalate-of-lime crystals with uric acid, and there being no constitutional evidences of Bright's disease, the case was diagnosed as one of temporary or intermittent albuminuria. The patient was treated with dilute nitro-hydrochloric acid, the diet was regulated—fish and chicken being substituted for butcher's meat, and no wine allowed—and Turkish baths were taken twice a week. In a few weeks the albumen began to lessen, the oxalates diminished, and the general health greatly improved. The patient was subsequently ordered to Contrexéville, and returned home quite restored in health and without a trace of albumen in the urine, which was otherwise perfectly normal; and has since—now three months—remained quite free from any return of the albuminuria.

E. C——, aged twenty-two, came under my care last June. He complained of debility, lassitude, severe headaches, and at times a sense of giddiness and fulness in the head, great nervous depression, derangement of the digestion, and he had lost weight considerably. The urine, on being tested, was found to contain a large quantity of albumen, which varied at different periods of the day, it being always greatest in the afternoon and hardly perceptible in the early morning. Some days it would disappear altogether and then recur. Under the microscope large quantities of oxalate-of-lime crystals were seen, and these were found to be most numerous whenever the albumen was greatest. This patient was treated with small doses of dilute nitro-hydrochloric acid; the diet was regulated, all wine was interdicted, and skimmed milk was given. Subsequently the Contrexéville water was ordered to be taken twice a day. The patient soon began to improve, the albumen gradually diminished, the oxalates disappeared, and his strength increased. He went to Scotland in the autumn, and on his return he had gained 16 lb. in weight; there was not a trace of albumen to be found, and he has since remained quite well.

The third case which came under my observation was similar in all essential particulars to the foregoing.

I consider the albuminuria in these and other such cases to be due to the irritation of the kidney structure by the sharp crystals of oxalate of lime which are deposited in the tubes. Evidence in support of this conclusion is further afforded by the fact that the treatment, which was directed to prevent the formation and favour the removal of these crystals, succeeded in completely curing the albuminuria. Other causes may, doubtless, account for temporary albuminuria, such as vascular weakness and atony of the nerves, or congestion of the kidneys, concurrently with neighbouring organs, from a chill, &c. Numbers of people, too, have oxalates as a temporary occurrence, without albuminuria; but when the habit becomes fixed, I think it will be found that it is frequently the cause of this intermittent albuminuria, and may even be the precursor or predisposing cause of Bright's disease. The significance of such a symptom should therefore not be underrated, and should receive the most watchful care and treatment. In such cases the dilute nitro-hydrochloric acid in small doses, by its action on the liver preventing the formation of and breaking up the crystals of oxalate of lime, and the use of the weak, alkaline earths, such as lithia, and the Contrexéville waters, are singularly curative.

Cadogan-place.

PRESENTATION.—Dr. C. E. MONRO, on the occasion of his leaving Newtown to carry on practice in the suburbs of London, has been presented by friends and patients with a handsome silver salver, accompanied with an illuminated address.

MEDICAL OFFICERS OF IRISH PRISONS.—The General Prisons Board, Ireland, have recently issued a circular with reference to the payment of fees of substitutes for medical officers of prisons during their absence. It is to the effect that when a medical officer attends as a witness before a Commission of Inquiry, or as a witness at assizes, and is paid his expenses, he must pay his substitute, as the board decline, they state, in any case, even where an allowance is conceded, any direct responsibility to such substitute.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

UNIVERSITY COLLEGE HOSPITAL.

STAB IN THE ABDOMEN WITH A CARVING-KNIFE; EXAMINATION OF STOMACH, COLON, AND OMENTUM; VISCERA REPLACED; SUTURE; UNINTERRUPTED RECOVERY; REMARKS.

(Under the care of Mr. BARKER.)

THE following case of penetrating wound of the abdomen is chiefly interesting from the treatment which was carried out in the case. It was not certain whether there had been a wound of the contents of the abdomen or not, neither was it known to what extent extravasation of blood might have taken place. Wound of the viscera with extravasation of contents, or decomposition of blood-clot, producing peritonitis, constitute the chief danger in these cases. Few surgeons with the power of employing full antiseptic precautions would hesitate to follow the method used here, and remedying as far as possible any such condition, if found. In the surgical records of the Americal civil war thirteen cases of incised or punctured penetrating wound of the abdomen without injury of the viscera are recorded; of these nine recovered.

L. D——, a healthy girl, aged fourteen, was admitted at about 4.30 P.M. on January 14th for a recent wound of the abdomen. She was carrying a dish downstairs at 2.30 P.M., on which was a carving-knife pointing towards herself. At the kitchen door she turned to speak to the cook, and then stumbled, when the handle came in contact with the door-post, and the blade ran into her abdomen, remaining there for some seconds before falling out by its own weight. She did not faint at the time or later. On arriving at the hospital she was examined by Mr. Barker, after careful cleansing of the wound with carbolic solution. The wound was a clean cut one, an inch long, seated two inches to the left and an inch and a half above the level of the umbilicus, close to the margin of the ribs, and consequently over the cardiac end of the stomach. On passing the finger into the slit, it was found to correspond to a deep wound in the rectus muscle, which was almost transverse. A probe was passed into the abdomen from left to right, and was felt to tilt against scybala in the transverse colon. There was but little external bleeding, though a few small clots escaped. The girl was not collapsed, and did not appear to be suffering much pain. The pulse was 130; the temperature in the rectum, 101·2°.

Judging from the extent of the wound and its direction that either the stomach or transverse colon could hardly have escaped, Mr. Barker determined to explore the abdominal cavity thoroughly round the seat of injury before any septic processes should have time to extend. The temperature and pulse at 6 P.M. seemed to indicate the commencement of inflammation. He therefore enlarged the skin wound forwards to the extent of exactly three inches, the inner end of the incision now reaching the middle line about half an inch above the umbilicus. The whole operation was done with the strictest antiseptic precautions. The rectus muscle was then seen to have been divided by the carving-knife almost completely across, only half an inch or so remaining uncut close to the linea alba. The wound gaped widely, and was partly blocked by a mass of omentum. On the latter and between the ends of the divided muscle were some small clots, which were carefully wiped away. When the whole space had been cleared, and a few of the inner fibres of the rectus had been divided to the extent of the wound on its peritoneal aspect, the omentum was drawn out and wiped clean of some remaining clots. It was then replaced, and the stomach was drawn out of the wound to a considerable extent and examined, but was found to be uninjured. Having been carefully wiped with carbolised sponges, it was replaced, and the adjacent part of the colon was pulled through the wound and passed through the fingers from side to side, until all of the transverse portion that might have been injured had been closely inspected. Finding no injury here, Mr. Barker replaced the bowel, and then sponged out the abdomen all round with small carbolised sponges. The peritoneal edges of the wound were then brought firmly into contact by six or seven stout carbolised silk sutures, including the edges of the rectus muscle and its sheath. These were cut short and remained in the wound. The skin wound was then united with seven silk sutures, except at the outer angle, where a drainage-tube was inserted. It was dusted with iodoform, and dressed with salicylic wool firmly secured with a bandage encircling the body.

There was no shock after the operation, and at 8 P.M. the patient was comfortable; pulse 100; respiration 22; temperature in the rectum, 99°. During the night the patient vomited a little, as the result of the chloroform, but was almost free of pain. The next day she was perfectly well, and remained so until she left the hospital. She required no morphia, and was in a few days anxious for abundance of food. The wound was dressed for the first time on the third day, and was found healed, without a trace of discharge. The tube was shortened to half an inch, and the same dressing applied. This was not again disturbed until the twelfth day, when the seven superficial stitches and the last bit of the tube were removed, as the wound was quite dry and healed. The deep sutures were left undisturbed. The girl was quite well from first to last, the pulse, temperature, and appetite remaining normal. As the rectus muscle had been cut across, Mr. Barker thought it better to keep the patient in bed for full three weeks, to avoid overstrain of the deep sutures. She was therefore kept on her back, with the shoulders raised and thighs flexed, until the twenty-second day, when she was allowed to get up. A week later she went home, perfectly well in every respect.

Remarks by Mr. BARKER.—That the knife must have passed well into the abdomen was evidenced by the extent of the gash in the peritoneum, and that the viscera should have escaped was extraordinary. The extent of the wound in the rectus and peritoneum could not have been discovered without enlarging the skin wound, and, without examination of the viscera as above, there would have been no certainty as to their fate. The early removal of the clots and thorough cleansing of the serous surfaces probably prevented a dangerous peritonitis, which was almost certain to follow such a wound of the peritoneum made by a knife lately used for carving; and the accurate suture of the peritoneum, the rectus muscle, and its sheath prevented any chance of hernia if the patient survived the risks of the stab.

WEST LONDON HOSPITAL.

POISONING BY OXALIC ACID, FOLLOWED BY PARTIAL SUPPRESSION OF URINE AND ACUTE NEPHRITIS; RECOVERY; REMARKS.

(Under the care of Dr. DONALD W. C. HOOD.)

THE following notes have been supplied by Dr. Bailey, resident house-physician.

D. W——, aged forty-two, labourer, was admitted on June 9th, 1885. Shortly before admission he had taken half an ounce of oxalic acid mixed with hot tea. The patient stated that almost immediately he became unconscious. He was brought to the hospital at 9 A.M., being in a collapsed condition, with sub-normal temperature (97·2°); pulse very feeble (120 to 130), scarcely perceptible at the wrist; no delirium; face livid and cold; extremities cold; pupils normal; mind entirely clear; throat extremely painful; tongue with white coating on dorsum, otherwise not much burnt; almost constant retching, any fluid swallowed being immediately returned; vomit giving characteristic reaction, becoming black after standing. The patient was treated with lime-water and albumen, the tendency to collapse and syncope being kept in check by brandy and sinapisms.—2 P.M.: Quietly dozing; temperature normal; pulse 90, very feeble; retching still obstinate.—10.30 P.M.: General condition improved; pains in the throat less. Now makes complaint of great pain over the region of the bladder and right hypochondrium. Is unable to pass urine; 20 oz. drawn off by the catheter, and found to be normal.

June 10th.—Passed a fair night. Pulse 68; pain in

bladder, which does not appear to be increased by pressure; still vomits; has passed no urine.

11th.—Voided 3 oz. of urine, which was unfortunately thrown away. Pulse 78; temperature 100°. Pain in the loins. Vomited much.

12th.—Urine 3 oz., thick, straw-coloured; sp. gr. 1012; neutral; nearly solid on boiling; deposit of blood-corpuscles and large granule cells; no casts. Vomiting continues the most troublesome symptom. The abdominal pain is less.

13th.—Urine 3 oz., character same as last. Vomiting more troublesome; everything taken by the mouth is thrown up immediately. On one occasion about a pint of black fluid (altered blood) was ejected. Ordered to take no food by the mouth; to be fed entirely on nutritive enemata.

14th.—Feels very weak; irritability of stomach much better. Retains enemata well. There is marked pain over both renal regions, and slight swelling of legs. Tongue almost denuded of epithelium.

16th.—Since the last note he has passed more urine, as much as 24 oz. during the night; it is still highly albuminous.

18th.—Since the 13th he has been fed entirely by the bowel. To-day he was ordered a little milk, which was swallowed without difficulty or pain, and was retained. Urine normal in quantity.

19th.—Quantity of urine 70 oz. during the night.

20th.—Urine 144 oz. during the twenty-four hours; it is still highly albuminous; examined for urea, it was found that an average of 700 grs. per day are being passed; the deposit consists of granular cells; casts containing granular cells, others simply granular, and others hyaline.

25th.—Since last report the patient has been passing very large quantities of urine, from 150 oz. to 120 oz., in the twenty-four hours; the albumen is gradually decreasing, as are also the deposits. His general health is much improved. He retains all food, and feels stronger and better in every way.

July 3rd.—Discharged well. No trace of albumen has been detected in the urine for the past three or four days. The patient expressed himself as feeling strong and well.

Remarks by Dr. HOOD.—In the cases of poisoning by oxalic acid to which I have referred, I can find no mention of the kidneys being subsequently affected. In the above case the suppression of urine first noticed was more apparent than real. The patient could take no nourishment, and vomiting was constant. But that the kidney received the brunt of the attack was clear by the large amount of albumen which appeared, and which rendered the specimen of urine examined all but solid. Blood-exudation corpuscles, pus, albumen, and casts, pronounced a definite nephritis, which cleared up as rapidly as it commenced, convalescence being marked by extreme diuresis. With regard to the treatment, the fact that for five days the stomach had complete rest, the patient being supported during that time entirely by nutrient enemata, is worthy of note. As in many other cases of poisoning by this salt, the onset of symptoms was very sudden. My patient stated emphatically that he became almost immediately unconscious.

QUEEN'S HOSPITAL, BIRMINGHAM.

CASE OF MALIGNANT DISEASE OF CÆCUM; NECROPSY.

(Under the care of Dr. SUCKLING.)

FOR the following notes we are indebted to Mr. J. Griffiths Whittindale, house-physician.

J. H——, a male, aged fifty-seven, was admitted on Aug. 10th, 1885. Family history good; father died at the age of eighty-four; mother aged eighty-six. Is a shoemaker by trade. Some years ago he used to suffer from cramp and spasms, but had never had any acute illness. About nine months since he fell downstairs and injured his right side, and this was followed by diarrhœa for two months. Seven months ago he noticed pain in the right lumbar and iliac regions; these pains were sharp and of a shooting character. Soon after this he noticed a lump in the right iliac region, and this had slowly increased in size up to the present time. Bowels had been regular, and he had not passed blood.

On admission the man had an anxious and pinched expression, and was evidently emaciated. He complained of constant pain in the right iliac fossa and pain and difficulty in micturition. Said he had been losing flesh rapidly. Cardiac and respiratory systems normal. On examination of the abdomen, a tumour about the size of a cricket-ball was found in the right iliac fossa extending upwards into the right lumbar region. The growth was firm and fixed, not moving with respiration, and was tender on pressure; it caused a visible prominence. The femoral glands on both sides were enlarged. The tumour was slightly irregular on its surface, extending downwards to Poupart's ligament, upwards to the level of the umbilicus, and inwards to the outer edge of the rectus abdominis, with dulness on light percussion and resonance on heavy percussion. Right testicle painful and enlarged. Temperature normal. Weight 8 st. 3 lb.

Aug. 20th.—Growth has not materially increased in size since admission, and the pain is not so severe. Bowels open daily, stools being normal and containing no blood. During the past week there has been a rise in temperature, which now ranges from 100° to 101°. Weight 8 st. 1 lb.

30th.—General condition of patient has improved, but the temperature still varies.

Sept. 8th.—No pain for some time and no increase in size of growth. Patient was discharged to-day at his own request.

Oct. 19th.—Readmitted to-day. He says that for about a week after his discharge he felt very well, but the pain then recurred and has been very severe since, shooting down to the scrotum and through to the back. Three weeks ago diarrhœa came on and has continued, and a fortnight since he passed blood in his motions. Complains of loss of appetite and flatus. The tumour has increased in size. Temperature 100°. Rectal examination revealed nothing abnormal. Weight 7 st. 11 lb.

13th.—Pain has been very acute. Diarrhœa continues. There is increased tenderness on pressure over the tumour.

20th.—Complains of sickness in the mornings. Growth increasing in size in lumbar region. Temperature varies from 99° (morning) to 101·8° (evening).

30th.—Tumour growing rapidly. No pain now. Marked anæmia. Epigastric veins enlarged from pressure on vena cava. Patient has appreciably lost flesh since admission, but weight remains the same, probably from increased size of growth. Slight dulness on percussion, increased vocal fremitus, and some fine râles found at right apex to-day.

Nov. 14th.—For the past two days he has vomited after everything he has taken. The stomach is dilated, and he is much more feeble.

23rd.—There is now œdema of both ankles. A bed-sore has developed over the coccyx. Patient takes very little nourishment, and seems to be sinking.

25th.—No improvement. Temperature still high.

27th.—Much worse. Growth now extends beyond the middle line of the abdomen, and has been growing rapidly for the past few days. Complains of pain in the left side, and on auscultation friction sound was heard and dulness on percussion found.

29th.—Died this evening.

Treatment.—This resolved itself into treating symptoms as they arose. Hypodermic injections of morphia were given to relieve the pain and bismuth to control the vomiting. He was put on a stimulating diet. Small doses of cod-liver oil were tried at one time, but he could not retain it.

Necropsy.—Thorax: The left pleura contained some 6 oz. of clear serum. Left lung normal. There were two small cavities in the apex of the right lung, about the size of a marble. On opening the abdomen two large masses were seen, one occupying the right iliac and lumbar regions, and another lying over the spinal column. The small intestine was traced fairly easily down to about a foot from its termination, where it became involved in a mass lying over the spinal column. On making a section in this part the gut was seen to be much diminished in calibre, its walls enormously thickened, and intimately blended with what appeared to be the mesenteric glands, though such a quantity of seemingly scirrhous material was present that it was impossible to dissect the parts satisfactorily. The ileum could not be traced past this large mass. The ascending colon was next found and traced downwards, and was seen to lead to a cavity large enough to contain the whole hand; this was firmly associated with the mesentery and abdominal wall, and in separating it from the latter a large quantity of fetid liquid fæces escaped through accidentally rupturing the wall. This large intestinal expansion, so to speak, was apparently the cæcum, or rather its anterior wall was formed by the cæcum, and behind it seemed that the wall was formed by the iliacus muscle, as no trace of intestinal wall was found. Throughout the

abdomen small nodules of malignant growth were found, being especially abundant over the kidneys and diaphragm. The larger growth was also blended with the wall of the bladder. Some nodules were also found attached to the coils of the ileum and around the rectum. No secondary growths were found in the liver or spleen. On removing the right kidney a large quantity of urine was forcibly ejected, and on opening the organ it was found to be hydronephrotic, the pelvis being much dilated, this probably being caused by pressure of the cæcal mass on the ureter. The same condition was found on the left side, apparently from pressure by mesenteric glandular enlargement on the ureter. Microscopical examination of the growth by Dr. Gilbert Barling showed the growth to be a carcinoma.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Intra-cranial Tumours.—Thinning of Skull from Cerebral Tumour.—Cancer of Body of Stomach.—Cylindrical Cancer of Humerus.—Syphilitic Hepatitis and Pneumonia in an Infant.—Dermoid Cyst of Tongue.—Epithelial Tumour of Skin near the Rectum.—Aneurysm of Aorta and Aortic Valves.—Multiple Intussusception.

AN ordinary meeting of this Society took place on Tuesday last, Dr. Bristowe, President, in the chair.

Dr. BEEVOR showed a Tumour of the Upper Surface of the Cerebellum that grew forwards between the optic thalami, flattening the corpora quadrigemina and compressing the right optic thalamus, crus cerebri, and right superior cerebellar peduncle, causing left hemiplegia, fixation of eyes, staggering gait, priapism, fixed pupils, headache, vomiting, and optic neuritis; it was a psammoma. The second case was that of a man aged forty, in whom two tumours were present on either side of the medulla: one the size of a hen's egg on the left side, compressing and absorbing the under surface of the left lobe of the cerebellum, and pressing on the left side of the pons, the left fifth, seventh, eighth, and ninth nerves especially being destroyed; on the right side, in the angle between the medulla, pons, and flocculus, was a tumour the size of a hazel-nut, and pressing on the seventh and eighth nerves. The patient was stone deaf in both ears, and blind in both eyes; no absolute paralysis, but general weakness and double optic neuritis. The third case was that of a boy aged twelve in whom the tumour, a glioma, occupied the right side of the pons and the medulla, causing distension of parts and conjugate deviation of the eyes, with facial paralysis on both sides. The fourth case was a boy aged three months with a tubercular tumour of the right half of the pons and the medulla, causing left hemiplegia, complete right facial palsy, and conjugate deviation of both eyes to the left. Another specimen was shown of a tumour pressing on the left side of the pons and the cerebellum, producing staggering to the left and deafness of the left ear.

Dr. GEORGE OGILVIE exhibited a Tumour of the Right Hemisphere of the Cerebellum taken from a woman aged twenty-one. The case has been fully reported in Part 31 of *Brain*. Blindness, deafness on the right side, vertigo, staggering to the right, vomiting preceded by occipital headache and followed by unconsciousness, very feeble pulse, sensation of cold in the legs, atrophy of both optic discs, but no incoördination, were the chief symptoms. The tumour had a cartilaginous appearance, and was the size of a hen's egg; it had grown from the dura mater of the right side of the posterior fossa, and was a tubercular mass. The second case was that of a large Tumour of the Left Optic Thalamus, and occupied the posterior half of the left lateral ventricle; it came from a married woman aged thirty-nine. The symptoms were persistent severe frontal headache, noises in the ears, blindness, vomiting, giddiness, tendency to fall backwards and to the left, and impaired intelligence. The symptoms began four months after her last confinement. Maniacal attacks with hebetude for six weeks before death were also observed, as well as atrophy of both optic discs and loss of knee-jerks. Death followed an attack of double pneumonia. The tumour involved the posterior two-thirds of the left optic thalamus. The consistence was soft, and hæmorrhages were present in the gliomatous tumour.

Dr. HALE WHITE showed a series of specimens to illustrate the condition of skull met with in certain patients who die of tumour of the brain. The bones were soft and light, very thin, and transparent when held up to the light, which proceeding, owing to their tenuity, shows in the recent condition the vessels as a beautiful arborescent network. The thinness of the frontal, parietal, and occipital bones is in advanced cases about the same as that of cardboard. There is no bone in the skull which may not be altered in this manner; but the change, if it exist, is always found in the bones of the vertex, and in extreme cases in those of the base also; thus in one of the cases shown the petrous bone was affected, and its abnormal thinness gives a cribriform appearance and has laid open the tympanum. The bone, however, always remains hard. There is nothing noteworthy on the external surface, but the internal is roughened like sand-paper. In none of his cases was the tumour itself in actual contact with the skull. There is no doubt that this condition of bone is due to increased intra-cranial pressure. The growth of the tumour and ventricular distension are two causes of the increased pressure. The direction of the pressure is so variously modified that it is impossible to calculate accurately, for some tumours simply replacing brain substance cause no increase of pressure. As a rule the tumour is large, or ventricular distension great, where the thinness of bone obtains. The condition is rare in young children, for increased pressure causes the sutures to separate. There is little or no likelihood of the condition being mistaken for any other affection of the bones. There is never any thinning or absorption of the membranes—just as happens when an aneurysm causes absorption of the vertebræ by pressure, the bone disappears long before the inter-vertebral disc. Pain is such a constant symptom of cerebral tumour that it is impossible to decide whether the pain is particularly increased when the bones are becoming atrophied. Occasionally the pressure seems to set up some inflammatory action in the dura mater, for it may be seen to be covered with fine granulations. In reply to Dr. Bristowe and Dr. Carrington, Dr. White said that the symptoms had existed for some months in the case where the skull was thinnest. The thinning was due to general pressure inside the skull. The skulls referred to were preserved by Dr. Wilks and Dr. Moxon as illustrating the early stage of the thinning.

Dr. CARRINGTON exhibited a specimen of Cancer of the Body of the Stomach taken from a man fifty-seven years of age, in whom nine months before admission a profuse attack of hæmatemesis set in. Other symptoms were pain after food, vomiting, emaciation, debility, and ascites. Paracentesis was performed, and then the liver dulness was found to be diminished. At the necropsy one or two secondary nodules of cancer were found in the puckered great omentum; the œsophageal walls were hypertrophied; the pylorus and cardia were healthy, but the stomach was contracted, its walls thickened, it measured six inches by three, and had the appearance of an indiarubber bottle; there was no ulceration; the liver was very small, soft, and flabby, with wrinkled capsule; on section the lobules were ill marked. There was no obstruction of the vessels or ducts. The stomach was universally infiltrated with small round cells, with a superficial layer of undoubted carcinomatous growth. The hepatic cells were atrophied and fatty. In reply to Dr. Sainsbury, Dr. Carrington said vomiting continued till the last stage of the disease; and to Dr. Bristowe, that the disease lasted ten months.—Mr. BUTLIN referred to a similar case in the Royal College of Surgeons museum, and also to an œsophagus and scirrhous carcinoma of the bladder, in which the shape of the parts was maintained. Where hollow organs were affected he found it as Dr. Carrington described.—Dr. BRISTOWE had also seen a similar stomach (? carcinomatous).

Mr. JONATHAN HUTCHINSON, jun., showed specimens of Cylindrical Cancer of the Humerus. The patient, a Jewish lady aged fifty, was treated by Sir Andrew Clark for "rheumatic pains" about the left shoulder, which had followed a fall. After some little time a swelling developed in the upper third of the arm, and, Sir James Paget agreeing as to the advisability of an operation, Mr. Hutchinson made an exploratory incision to the bone, and found a small tough white growth adherent to the periosteum, near the deltoid insertion; during the manipulation the bone snapped. Amputation at the shoulder-joint was performed. The part healed well, but soon after the patient suffered from attacks of abdominal pain, she became more and more asthenic, and died some six months after the operation. The tumour had

certainly started in the medulla of the humerus, had crept through some minute canals to the periosteum, and from this had invaded the deltoid insertion and the surrounding fat; it probably had existed some five months; it filled about two inches of the medullary cavity; above this the medulla was very soft and congested, the head of the bone appearing quite healthy. The interest of the case lies in the microscopical structure, which in the central part of the tumour consists of regular cylinders or tubes, lined with one or more layers of cubical or cylindrical cells. The central cavity is formed by the fusion of vacuoles developed in the interior of the masses of cells, finger-like processes of which run in amongst the surrounding tissues. At parts the tubules resemble closely normal renal ones. It is tempting to try to regard the growth as a very unusual primary one of the bone—clinically it appeared to be such; it followed a blow on the part, and its method of spreading would agree with Sattler's illustration of the early stage of cylindroma. Sattler himself is doubtful as to the true nature of this form of tumour, but thinks the cells of epithelial rather than connective-tissue nature; Billroth describes cylindroma both under cancer and sarcoma; Mr. Butlin regards it as a sarcoma. In Mr. Butlin's rare case the tumour was soft and grew from the posterior ligament of the knee-joint. Paget mentions a case occurring in the humerus; most of the others have been found in the orbit or the parotid gland. But the ultimate structure of the present tumour is not that of true cylindroma, and a more natural explanation is that it was a secondary cancer, the primary one being, perhaps, situated in some part of the alimentary tract. There was no family history of tumours; no tumour certainly existed in either breast, nor was there any evidence of intestinal obstruction. It is worth noting that in 1863 Dr. Tyler Smith removed an ovarian tumour from the patient; the long interval (eighteen years) which elapsed, however, almost puts out of the question this being the primary growth. The following case throws some light on the matter. The patient, a man aged fifty-one, was admitted into the London Hospital in March 1885, under Dr. Sutton, suffering from pain in the hepatic region, which he attributed to a severe chill. Jaundice rapidly supervened, he lost flesh, and had diarrhœa alternating with obstinate constipation. In August ascites came on and he was twice tapped, eleven and thirteen pints of fluid being drawn off. At the post-mortem the liver was found to weigh 6¾ lb., and was firm; the gall-bladder was much dilated behind a light band; the capsule was speckled with white spots. Close to the small bile-ducts were found in various parts tubules and small cysts which resembled dilated ducts, but which were probably secondary growths which had been developed by means of the lymphatics from a small primary nodule at the pylorus. The lungs contained many small growths precisely similar to those described already in the first case; the pancreas, spleen, and kidneys presented nothing worthy of note. The perfect resemblance to gland tissue must serve to place this form of tumour amongst the most highly developed cancers.—Mr. BUTLIN referred to his case of cylindrical-celled carcinoma, which began in a rare situation in the ham. Cases of carcinoma of bone had been frequently recorded and it was reasonable to suppose (no primary source of the carcinoma being found) that some of the tumours were primary in the bone.—Mr. R. W. PARKER said that some ovarian tumours he had examined had the same cylindrical-celled characters as Mr. Hutchinson's specimen; he still thought that such osteal tumours were of secondary nature.—Mr. SUTTON considered that an epithelial tumour in the centre of the bone was inexplicable as a primary growth.—In reply, Mr. HUTCHINSON said that an interval of eighteen years had elapsed since the ovariotomy; so he could not agree to Mr. Parker's suggestion that the primary source was the ovarian tumour.

Mr. C. J. SYMONDS showed specimens of Syphilitic Disease of the Liver and Lung taken from a child one month old, in whom the first sign of the congenital mischief was a squamo-tubercular syphilide. The liver was enlarged, firmer than natural, greyish in colour, and uniform in consistence. It was uniformly infiltrated with a fibro-cellular growth; the liver cells seemed to be destroyed by the pressure of the new growth; much resemblance to hypertrophic cirrhosis was noted, but the appearances of a duct formation were absent. In the lung was a lump three-quarters of an inch across, solid, of greyish colour—an example of the white hepatisation of Virchow.—Mr. VICTOR HORSLEY considered that the disease was not rare, and Dr. ANGEL MONEY had made four examinations in which the syphilitic disease existed in the liver and lung.

Mr. STEPHEN PAGET brought forward some dermoid cysts. Mr. Sutton regarded them as not due to involution of epidermis, but to some change taking place in or around a minute duct in the embryo, called the lingual duct, which was the remains of a space that exists in the embryo between and beneath the halves of the tongue; when these halves are joined in the middle line the space is reduced to a minute canal, which runs down from the foramen cæcum, behind the tissues from which the hyoid bone is afterwards developed, and divides at its lower end into two follicles from which the thyroid gland is developed. If the lower part of this duct, the part below the hyoid bone, be not completely obliterated, it may become the starting-point of accessory thyroids, or may persist as a fine canal between the hyoid bone and the front of the thyroid gland; if the upper part of the duct be not completely obliterated, it may, Mr. Sutton says, be the starting-point of a dermoid cyst under the tongue. Mr. A. Barker described these cysts in Vol. 16 of the Clinical Society's Transactions. The cyst wall of Mr. Paget's specimen showed masses of granular black pigment in the rete Malpighii; also warty epithelial growths projected from the cyst wall. The cyst came from a girl aged five; the fluid in the cyst was very fetid.—Mr. SUTTON had advanced the notion that these teratoid and dermoid tumours were prone to develop in the neighbourhood of obsolete canals, and considered that subsequent research confirmed him in this view.—Mr. BUTLIN said the cyst was an abscess for all practical purposes.—Dr. BRISTOWE asked whether the tumour occurred exactly in the middle line.—Mr. PAGET replied in the affirmative.—Mr. HORSLEY said that in Mr. Barker's case the tumour was situate between and beneath the genio-hyoids.—Mr. BUTLIN remarked that the cysts occurred in two sites, between and outside the genio-hyoids.

Mr. CLUTTON exhibited a specimen of Epithelial Tumour which he had removed from a woman aged sixty. She came as an out-patient to St. Thomas's Hospital for some large sebaceous tumour of the scalp, and only incidentally mentioned that she had what she considered to be a similar tumour near the anus. This had been noticed two or three years, and had lately become rather painful. It was thought to be an abscess and was incised. Although fluid which looked like pus was evacuated, the tumour steadily increased in size. The patient was therefore admitted into hospital and the growth removed. It was situated quite close to the anus, but the mucous membrane of the bowel appeared to be free and was not exposed in the operation. The interest of the case chiefly rested on the naked-eye appearance of the cut surface of the tumour and its microscopical characters. The specimen, mounted in a bottle, looked as if there had been a central cystic cavity which had been subsequently filled with new growth. The cut surface, when examined with a hand glass, showed a number of small globular cysts scattered all over the solid parts of the tumour. The microscopical sections which were exhibited proved that the solid masses were epithelial, and that the small globular cysts had resulted from their mucoid degeneration. Some drawings were shown which suggested that the tumour had originated by epithelial in-growths from the skin. Each column was lined externally by a layer of columnar epithelial cells, and contained, internally, spheroidal cells, but no lumen. In the more advanced part of the growth, at some little distance from the skin, these had undergone mucoid degeneration, a condition which might possibly be explained by their proximity to the mucous membrane of the rectum. The bud-like processes from the rete Malpighii were not unlike those seen in the early stage of rodent ulcer.

Dr. SAMUEL WEST exhibited specimens of Aneurysms of the Aortic Valves and Pouches of Valsalva. The first was taken from a man aged thirty-seven, who had had rheumatic fever twice and a sudden attack of dyspnœa. The third specimen was interesting, for the aneurysm was developed from two valves which had previously fused. The fourth specimen was an aneurysm of a pouch of Valsalva and the anterior cusp of the aortic valve; the aneurysm had ruptured into the right ventricle. The case was that of a man aged thirty who had had rheumatism.

Mr. D'ARCY POWER showed a specimen in which the intestines were intussuscepted at two points: the ileo-cæcal valve, where it was two inches in length, and in the transverse colon in the reverse direction. In both cases the intestines

were glued together by recent lymph, but in the upper only was the intestine gangrenous. The occurrence of intussusception in a reversed direction appeared to be a very rare event.

The Council of the Society nominated the following gentlemen to form a committee to report on the specimens of Intra-cranial Tumour:—Dr. Beevor, Dr. Hadden, Dr. Ormerod, and Mr. Shattock.

The following card specimens were shown:—Dr. Norman Dalton: A Tumour of the Fourth Ventricle, causing Diabetes. Dr. S. West: Abscess of Gall-bladder, with Pus in Portal Veins. Dr. Hadden: (1) Intestine in Lymphadenoma; (2) Malignant Disease of both Supra-renal Bodies. Dr. Turner: (1) Syphilitic Ulceration of Trachea opening into Superior Vena Cava; (2) Conjoined Kidneys and Unicorn Uterus. Mr. J. Poland: (1) Amputation Stump at Knee-joint; (2) Dislocation of Knee-joint. Mr. E. H. Fenwick: Atresia (? congenital) of Orifice of Bladder, with Cystic Kidney. Dr. Haig: (1) Large Intra-pericardial Aneurysm of Aorta; (2) Intussusception from a Child aged four months.

CLINICAL SOCIETY OF LONDON.

Universal Alopecia.—Hysterical Pyrexia.—Meningitis of Obscure Origin.

AN ordinary meeting of this Society was held on the 12th inst., Mr. Thomas Bryant, F.R.C.S., President, in the chair. The papers read were of great interest, and evoked considerable discussion.

Dr. W. T. TYSON read a paper on three cases of Universal Alopecia, with remarks. Case 1 was that of a labourer aged forty. The family and personal history were negative in their character. The cause of his trouble seems to have been a money difficulty; for three months and a half this preyed upon his mind, and at the end of this time the hair on his head began to come out, and was all gone in four days. In a day or so later the rest of his hair began to be shed, and in four days—or in ten days from the commencement of the first shedding—the whole of the hair of the head, face, chest, body, and limbs had entirely disappeared. At the present time there is not a single hair to be seen anywhere. The hair was particularly thick and strong before the calamity; the colour was chestnut. He is a strong and active man. Case 2 was that of a shoemaker aged forty-four. Seven years ago his hair began to come out, and in one fortnight had all completely disappeared. He has never had any hair since. There was no syphilitic history. The cause, he alleges, was that two or three days previous to the loss of his hair he was sleeping at the top of the house, when, while in a sound sleep, he was suddenly awakened in a great fright by a tremendous clap of thunder. Simultaneously with the fall of his hair he lost the nails of the great toes and thumbs. The colour of his hair was light brown. He is a healthy and strong man. Case 3 was that of a billiard-marker aged twenty-one. In April, 1884, the hair began to come out in spots over the head, and in one month he had lost his hair over the whole of the body, except a few downy ones on the top of the scalp. Now there are to be seen a few hairs at the back and side of the head. The colour of the hair was dark brown and very thick. There is no history of syphilis. He is a well-built man. One month before his loss he was thrown violently from his horse upon his head. Since the accident his memory has been defective at times. These cases were brought forward as supporting the neurotic origin of the universal form of alopecia areata, and also to uphold the view that clinically there are two distinct classes of the disease, commonly called alopecia areata. The characteristics of this class of case were:—The affection begins in the scalp, not necessarily in spots, and spreads rapidly until the whole hair of the body is lost. It occurs in adults, but not always in young adults, as has been stated. The prognosis is not good, and it seems to become worse as age advances. The starting-point of the disease can often be traced to a neurotic cause. The above class of alopecia areata contrasts strongly with that ordinarily met with. Here the characteristics are that the disease begins in youth, in scattered bald patches on the scalp, and is confined to this portion of the body. The prognosis is good, the complaint lasting seldom longer than a twelvemonth. No cause is known.—Mr. BRYANT considered it remarkable that a small provincial town should furnish three such cases. He narrated a case in which mental shock appeared to induce the disease. Two young ladies were terrified at the sight of a dead body being dragged from a canal; one, who recovered, developed acute jaundice, and the other universal alopecia, which remained until her death four years later.—Dr. S. MACKENZIE considered that there were all stages between the local and the universal forms of alopecia. The presence of micro-organisms could be accounted for on the hypothesis that a disease of the skin formed a suitable nidus for the development of organisms. The rapidity with which the alopecia occurred in Dr. Tyson's cases negatived the parasitic view for his cases. Recently Dr. Mackenzie had known a case of symmetrical morphœa associated with alopecia, and he had seen several examples of neurotic disease thus associated.—Dr. TYSON could not agree with Dr. Mackenzie that the difference between the universal and local forms of the disease was one of degree: the local forms occurred mostly in children, and tended to recover; whereas the universal variety mostly occurred in adults, and did not recover.

Dr. HALE WHITE read a paper on a case of Hysterical Pyrexia. A girl aged eighteen was admitted into Guy's Hospital on Aug. 10th of last year, suffering from pyrexia, pain in the abdomen, and diarrhœa, the latter symptom being due to the abundant purgatives which had been given. Previous to admission the pain had been referred to the right iliac region; on the above date it was referred to the left. The temperature varied from 105° to 99·2°. She was readmitted on Sept. 9th. Her mother said she had returned to her work, but on the 8th was suddenly seized with pain in the left side. On readmission the face was flushed, the skin hot and dry; frontal headache; no physical signs anywhere; no evidence of zymotic disease. She complained of pain and tenderness on the left side, midway between the ribs and crest of ilium, but she never twice located the pain in the same place. If her attention was engaged she allowed the freest manipulation without wincing. At first she protested that she could not sit up and could not lie on the left side, but in a few minutes, when her attention was distracted, she did both these. There were a few vaginal cells in the urine, and a trace of albumen, but not more than the pyrexia would explain. The abdomen was so retracted that it was impossible there could have been enlargement of any viscus without its having been felt; peritonitis was also out of the question. The temperature varied between 105° and 98·8°. On September 13th the temperature was normal, and so remained till the girl's discharge. The author pointed out that the patient was undoubtedly hysterical, for the whole characteristics of the pain showed it to be subjective. The most careful examination failed to discover any physical cause for the pyrexia, nor was there evidence to show that it was due to a zymotic disease; not even typhoid fever would explain two such short, erratic, but severe attacks. If the temperature were due neither to inflammation nor a zymotic disease, it must have been due to direct affection of the nervous system, but there was no evidence that injury, growth, or inflammatory action affected the nervous system, therefore the affection of it must have been functional. Not only can the diagnosis be arrived at in this exclusive method, but the following features in the case were characteristic of hysteria: the variability of the temperature both diurnally and generally, the other hysterical symptoms, and the age and sex of the patient. It was pointed out that none of the patient's symptoms militated against the view that the pyrexia was hysterical. The cells in the urine were vaginal; the albumen and delirium were pyrexial. Rigors have been described in other cases of hysterical pyrexia. The reason why hysterical pyrexia was not more recognised was because it was not sufficiently realised that functions over which the will has no control may be hysterically affected, and also that the temperature of the body is directly under the control of calorific nerves which proceed from the cortex of the brain to the muscles; these nerves perpetually inhibit the temperature of the body. Bearing these two facts in mind, there was no reason whatever that the thermogenetic actions of the body should not be perverted, nor was it more extraordinary than hysterical ischuria, vaso-motor paralysis, &c. A brief abstract was given of all the cases of hysterical pyrexia hitherto recorded, and from these it was found that the chief symptoms of this disease were—firstly, it always occurs in girls; secondly, they are often otherwise hysterical; thirdly, they are always of an age at which hysteria is common; fourthly, ovarian pain and tenderness are often present; fifthly, rigors may be present; sixthly, other symptoms more or less connected

with the temperature are often accompaniments of it—viz., delirium, rapid pulse, flushings, a trace of albumen, but any one or all may be absent; seventhly, the characteristics of the temperature are, its erratic behaviour, the temperature also varying in different parts of the body.—Dr. W. H. DAY spoke of the case of a lady, aged fifty-six, who had some unexplained fever which he regarded as of neurotic origin.—Dr. SAVAGE said it was exceptional to get an increased temperature in asylums unless inflammatory visceral disease were about to develop. Cases, however, before admission into asylums, occurring in hysterical women, not unfrequently presented a temperature of 102° or 103°, with irregular course. Some of the cases developed acute delirious mania, and some recovered. He had taken the temperature of the scalp in many instances, and found it not to be above 99° in cases of so-called "brain fever," but a temperature of 104° in the axilla might be observed in the same cases. He suggested that an investigation of the relative temperatures of the head and body might prove of considerable value. Lurking disease of the lungs, such as a patch of pneumonia or tubercle, might, it must not be forgotten, fail to reveal any other symptoms than pyrexia, and so caution was necessary in connexion with the subject of "hysterical" pyrexia.—Dr. GOODHART considered that there was some objection to the term "hysterical," and preferred to speak of "neurotic" pyrexia.—Dr. B. O'CONNOR related a case in which there was dulness of one side of the thorax.—Dr. BRISTOWE briefly related two cases that have been published in full in "Brain." Both occurred in women. The development of ophthalmoplegia externa was followed by hemianæsthesia of all the senses; then hemiplegia and rigidity supervened, and later on epileptiform fits. There was an almost persistent fever, which varied from 97° to 103°. A year or two before there was exophthalmic goitre, which subsided some time before the fatal issue. After death the cerebral and other viscera were found to be healthy. The second case was still living and almost exactly the same, but the fever showed itself first before the onset of the fits, when the temperature rose to 102° or 105°.—Dr. HALE WHITE said the time of life, the sex, and other associations of hysteria warranted the use of the term "hysterical pyrexia." Neurotic pyrexia had a wider significance, and included cases of pyrexia due to cerebral hæmorrhage, &c. As examples of death from functional disease he regarded Dr. Bristowe's cases as of much value.

Dr. GOODHART read notes of cases of Meningitis of Obscure Origin. A young lady aged eighteen, of exceptionally good health, was much affected by an offensive smell in a house which she visited, and from that time became ill. The symptoms ultimately developed into well-marked cerebro-spinal meningitis, with vomiting, paralysis of the recti muscles of the eyeballs, severe headache, stiffness of the neck, tremulousness of the muscles, and death on the nineteenth day. There was no necropsy. Two children, one of four years, the other one year and a half, under the care of Mr. Atkins of Plumstead, had measles, and on convalescing suffered a relapse, on which the temperature rose, the head became retracted, the mental condition apathetic or comatose, and rigid spasm affected the extremities at intervals; in the elder child there was optic neuritis. Both cases recovered, the infant rapidly, the elder child after an illness of five or six weeks, and she remains permanently deaf. The next case is that of an infant four months old, brought to the Evelina Hospital for rapidly recurring convulsions and high temperature; it was admitted, and two ten-grain doses of bromide of potassium administered by enema. The convulsions ceased within twenty-four hours, but the child remained with retracted head, oscillating temperature, double optic neuritis, and momentary left-sided spasm when touched. There was no evidence of any disease of the ear during life, but after death the middle ear contained pus on both sides; there were suppurative meningitis of the right half of the brain and thrombosis of the right lateral sinus. The fifth case was that of a widow lady, aged fifty, under the care of Dr. Herbert Evans, of Hampstead. After a time of much anxiety and fatigue in nursing a relative she began to feel cold and ill; intense headache and pain in the back and paralysis of the external recti of the eyeball supervened, and a moderate amount of optic neuritis. She was treated at first with free nourishment and tonics, but without relief, but she decidedly improved under iodide of potassium and perchloride of mercury, although only slowly; the illness lasted three or four months in all. Each of these cases raises several issues as regards its origin. In the first, although it is impossible, in the absence of a necropsy, to exclude with certainty either tubercle or internal otitis, yet on the whole the facts seem to favour a septic origin. The three children, although two recovered, may all of them have been subjects of internal otitis; but cerebro-spinal fever after measles, the view favoured by Mr. Atkins, is equally possible in the case of the two. The fatal case was advanced particularly to enforce the obscurity that exists during life in many cases of otitis interna, and Dr. Goodhart wished particularly to gain the experience of aural surgeons in this matter. His own experience did not allow him to think that the disease was to be diagnosed during life by the mere alterations in the appearance of the membrana tympani, nor yet that the post-mortem appearance justified the belief that incision of the membrane would be of any real service. It was contended that these cases supported the opinion maintained for the first case—viz., that meningitis, idiopathic in a sense, is probably less grave than modern doctrines seem to teach, inasmuch as there is evidence to show that the risks of ear trouble are chiefly dependent upon superadded external conditions, and that in all probability the chronic ear disease is the open door, rather than the actual weapon by which the meningitis is inflicted. The last case still remained obscure.—Dr. F. L. BENHAM related the case of a child who had several symptoms of meningitis after measles, and was slowly recovering; he regarded the case as one of "functional" disease.—Dr. W. H. DAY said that otitis was the commonest cause of meningitis, and related several cases illustrative of the variety of clinical aspect of tubercular meningitis.—Dr. BRISTOWE considered that in the meningitis of young children recovery might not unfrequently ensue. Suppuration of the middle ear as a precursor and cause of meningitis he confessed himself sceptical about; he would not deny that it occurred, but was inclined to think that meningitis and otitis were the results of the same cause, and it was doubtful whether the ear disease was ever primary. He expressed his belief in the possibility of recovery from tubercle of the brain, and related the case of a girl who had all the signs of tubercular peritonitis; headache, double vision, and paralysis of the external recti supervened, when the abdomen became rather rapidly well. The patient ultimately made a fair recovery, though some loss of memory was still present.—Dr. C. WEST drew a sharp and fast distinction between simple and tubercular meningitis, confessing that the former might own septic causes, and might originate from eruptive fevers, and especially measles. In his belief, simple meningitis might be recovered from not unfrequently, and occasionally cerebral tubercle also. Tubercular meningitis rarely had a pyrexia of more than 101° or 102°, and this fact he regarded as of diagnostic importance. He was disposed to adopt Dr. Bristowe's point of view of the concomitance of otitis and meningitis.—Dr. SIDNEY PHILLIPS had watched a case of purulent cerebro-spinal meningitis following measles, without otitis, and the diagnosis was confirmed by a necropsy.—Mr. R. J. GODLEE had been told by Mr. Barker that the presence of muco-pus in the middle ear was an almost physiological occurrence, and asked Dr. Goodhart what his views were on this point.—Dr. GOODHART, in reply, believed that the presence of muco-pus in the middle ear was a very common condition, but not pure thick pus. Whether there was any causal relation between meningitis and otitis it was difficult to say with certainty. He considered there was abundant evidence to show that actual simple meningitis could be recovered from, and was inclined to think that even the tubercular form might terminate favourably.

The following living specimens were shown:—Dr. Stephen Mackenzie: Two cases of Unilateral Paralysis of the Tongue, Soft Palate, and Vocal Cords; and cases of Alopecia Areata in three members of one family. Mr. T. Cooke: Symmetrical Gangrene of the Fingers (? Raynaud's disease). Mr. Godlee exhibited a pathological specimen showing Calculi impacted in the Urethra.

MEDICAL SOCIETY OF LONDON.

Dystrophy of Thumb-joints.—Excision of Elbow-joint, and Tubercular Testis.—Tubercular Leprosy.—Pityriasis Circinata.—Congenital Constriction of Leg with Perforating Ulcer of Foot.

A CLINICAL meeting of this Society was held on Monday last, Dr. Wm. Ord, President, in the chair.

Dr. R. MAGUIRE showed a case of Dystrophy of the

Thumb-joints, in which inflammation of the carpo-metacarpal joints of both thumbs came on after the removal of two ovarian tumours in November, 1885. The arthritis has continued unabated, the veins about the joint are swollen, and there is increase of temperature; grating between the arthritic surfaces can be obtained. The thenar eminences are a little wasted, but there is no reaction of degeneration, only generally diminished reactions to both currents. Menstruation had ceased since the ovariotomy. Pain was the first symptom in the left thumb; the right followed later. The reflexes at the wrists were perhaps a little exaggerated. Absence of rheumatism, gout, and the relation in time to ovariotomy and the appearance of the disease when the joints were comparatively quiet, suggested a causal relation between the ovariotomy and the arthritis. It was connected not with congestion, but rather with anæmia of the genital regions. All treatment had proved of little avail.—Mr. WM. ADAMS did not think it could be placed amongst the neurotic alterations in joints. The principle of "rest and sweat" night and day should be employed in treatment.—Mr. B. JESSETT recommended complete rest of the joints.—Dr. WM. ORD believed that the case was one in which reflected "uterine" irritations were at work; the ovaries had been removed, but we did not know what the state of the uterus was.—Dr. MAGUIRE, in reply, said he presented the case simply as a clinical fact.

Mr. FRANCIS MASON exhibited a young man on whom he had performed Excision of the Left Elbow-joint, with good result in a freely movable joint. Since the operation a tubercular testis on the right side had developed, with infiltration in the right side of the prostate and the base of the bladder.—Mr. HURRY FENWICK, who showed this case in conjunction with Mr. Mason, suggested that the testicle became diseased as the result of infection from the joint, possibly about the time of the operation, and in consequence thereof.—Mr. STEPHEN PAGET did not perceive the reason why the testis should not have been produced under the same influences that gave rise to the tumor albus of the elbow-joint.

Dr. RADCLIFFE CROCKER exhibited a boy, aged sixteen, with Tubercular Leprosy, who had lived in Dominique, but was of Scotch parentage. There had been no privation; the boy had eaten fish. The leprosy appeared first in 1882, one year after the boy came to England to go to school. Febrile symptoms preceded the development of tubercles; the progress had been *saltatim;* febrile attacks accompanying each fresh crop of tubercles; the glands in the groin and elsewhere enlarged just before the febrile attacks. There were no definite tracts of anæsthesia; the ulnar nerves were not materially thickened; the mucous membranes of the tongue, epiglottis, and vocal cords were affected with tubercles; the nails had been destroyed in places; sometimes the tubercles ulcerated; and the typical bacilli had been detected. Gurjun oil had been employed with a little benefit.—Mr. SPENCER WATSON related a case.

Dr. RADCLIFFE CROCKER also showed a case of Pityriasis Circinata in a man aged twenty-seven. It began on the abdomen a month ago in oval or round patches, enlarging peripherally and disappearing centrally; at first bright red, becoming brownish and scaly. The disease generally ran its course in from one to two months. Vidal described a fungus microsporon, probably a micrococcus, but no real parasite had been discovered. Calamine lotion and liquor carbonis detergens were used locally.—Dr. STEPHEN MACKENZIE said that the micrococcus was an epiphenomenon, and might be found in any scaly débris from skin disease. The disease was not parasitic. Boracic acid was better than carbolic acid, though the latter relieved itching.—Dr. COLCOTT FOX said the eruption was more scanty in children, and occurred entirely on the trunk. It looked like psoriasis at first sight, but the distribution was different. A micrococcus was always present, but as an epiphenomenon.—Dr. R. CROCKER, in reply, said he considered the disease to be the same in children as in adults, between which there were all links.

Mr. J. H. MORGAN showed a case of Congenital Constriction by a Band producing Perforating Ulcer of the Foot, in a painter aged thirty-eight. On the right hand the fourth digit had no terminal phalanx and only a rudimentary second phalanx; the second and third digits were fused, and had only a proximal phalanx; there were no nails on these digits. The left hand index finger had a rudimentary second phalanx and no nail. The right lower limb showed a firm cicatricial contraction, which surrounded the knee below the patella; the leg was smaller on this side, and had a chronic sclerodermatous-like condition of the skin. There was a perforating ulcer on the under surface of the ball of the great toe, which tended to ameliorate. The knee-jerks were normal; some anæsthesia was present.—Mr. WM. ADAMS suggested that lymph bands in utero might give rise to the cicatricial markings in limbs by causing constriction. It was difficult, however, to understand the cases.—Mr. RITCHIE asked how much the malnutrition was due to vascular and how much to nervous damage.

Mr. SPENCER WATSON showed some New Instruments for use in the removal of Nasal Polypi.

OBSTETRICAL SOCIETY OF LONDON.

Removal of both Ovaries during Pregnancy.

THE annual meeting was held on Wednesday, Feb. 3rd, J. B. Potter, M.D., F.R.C.P., President, in the chair.

Mr. KNOWSLEY THORNTON read a paper on a case of Removal of both Ovaries during Pregnancy. M. W——, married, aged twenty-two, in the third month of pregnancy, was known to be large twelve months before marriage. She is now beyond the size of pregnancy, and has a large fluctuant tumour in the abdomen, which is growing fast. Has suffered from several attacks of pain in the abdomen, with rise of temperature, sickness, and faintness. Diagnosis: ovarian tumour complicated by pregnancy. Ovariotomy advised, and performed Feb. 4th, 1885. Dermoid tumours of both ovaries removed. Rapid and uninterrupted recovery. Premature delivery at eighth month. Labour uncomplicated. Lochia normal. Fine healthy child, and plenty of milk to nurse it. On examination, uterus found atrophic; patient, while nursing, suffering from flushes, chills, &c., just as others do who have an artificial menopause brought on by operation. The author made remarks on the interesting physiological and pathological problems which this unique case suggests.—Dr. JOHN WILLIAMS said that in a note read before the Society in 1884 he described the involution of the puerperal uterus in the absence of the ovaries. In that case the left ovary had been removed some years previously, and the right was removed soon after labour set in. The course of the process of involution might have been affected directly by the interference of the operation in his case; but in Mr. Thornton's it could not have been so, for the operation had been performed some months before labour set in. He would ask Mr. Thornton if any observations had been made on the process of involution in his case.—Dr. ROUTH remarked that the atrophy of the uterus could not impede lactation, and quoted Dr. Livingstone, who stated that the wives of the African kings were not allowed to suckle their own children, as it was thought derogatory. The child was given to the grandmother, generally an old woman, to whose mammæ and pudendum certain plants were applied and the child put to her breasts, with the result that she was able to suckle the child. He also alluded to well-authenticated cases in which men had suckled. He objected to the conclusion that menstruation always depended upon ovulation; this question he considered undecided, and facts were accumulating to show that menstruation had really very little to do with ovulation.—Dr. MATTHEWS DUNCAN regarded tapping as the best treatment in cases of simple parovarian cyst. It involved less danger than extirpation, and was often successful. The extirpation of small papillomatous ovaries involved many difficulties. He did not believe any operation could cure where malignant disease had extended to several different parts of the peritoneum. He also reminded the Society that Dr. Tyler Smith had supported the view that the commencement of labour was a function of the ovaries. This view was now rendered almost untenable by Mr. Thornton's case. He had no doubt whatever that the ovaries were indissolubly connected with menstruation.

The following specimens were shown:—Dr. W. Griffith: (1) Uterus showing a Dilated Cavity; (2) Sarcoma of Uterus. Mr. Thornton: Papilloma of Ovary.

The Society then proceeded to the business of the annual meeting. The treasurer's report was adopted, on the motion of Dr. Playfair, seconded by Dr. Carter; the report of the hon. librarian, on the motion of Dr. Godson, seconded by Dr. Horrocks; the report of the chairman of the Midwifery Board, with a vote of thanks, on the motion of Dr. Matthews Duncan, seconded by Dr. Malins, and supported by Dr. Graily Hewitt. The scrutineers (Drs. Thomas and Lewers) declared the list of officers and council proposed by the

Council adopted. The President delivered the annual address, for which a vote of thanks was proposed by Dr. Graily Hewitt, seconded by Dr. West. A vote of thanks to the retiring officers (Dr. Herman and Mr. Thornton) was proposed by Dr. Gervis, seconded by Dr. Watt Black; and one to the retiring Vice-Presidents and other retiring members of Council was proposed by Dr. Routh, seconded by Dr. W. Duncan.

Reviews and Notices of Books.

Reference Handbook of the Medical Sciences. Vol. I. Anc-Cat. By various Writers. Illustrated by Chromo-lithographs and fine Wood Engravings. Edited by ALBERT H. BUCK, M.D. New York: Wm. Wood and Co.

THIS work, of which the first instalment is before us, which is to comprise eight volumes of about eight hundred pages each, will undoubtedly mark an era in the literary history of medicine and the allied sciences. It is quite impossible in the space at our disposal to give an adequate description of the merits of the production, whether we turn to the rare knowledge and skill which the several contributors have brought into requisition, or to the excellent arrangement of the subjects treated of, the type, and, last but not least, the admirable illustrations. Our readers will be able to form some idea of the completeness of the text and its illustration when we inform them that in the article "Applied Anatomy of the Arm" thirteen pages are devoted to the former and twenty-six woodcuts to the latter. How consistently and thoroughly the plan of the editor is carried out may be gleaned from a brief comparison of widely different subjects. Thus, almost immediately succeeding a classical dissertation on "Army Diseases" and "Army Hospitals" is a brief description of "Arnica," which includes the characters of the plant, its chemical and therapeutic properties, and other interesting details, to which is added an excellent chromo-lithograph. The pathological anatomy of disease is given in sufficient detail. Take, for example, the subject "Adenoma," the description of which is graced with four well-executed drawings.

The article "Blood" will earn for the author considerable repute. It contains a well-digested account of the salient features of that "fluid," both in its physiological and morbid conditions. It contains fifty diagrams, of which the greatest interest will attach to those representing the different instruments for estimating the number of corpuscles and the quantity of colouring matter in a given preparation; and the spectroscopical appearances, twenty-four in number, of blood under as many chemico-physical conditions. It remains to be said that each subject is fully up to the present state of knowledge and research. Attention may be called to "the running titles at the upper corners of the pages; these are intended to aid the reader in searching for a particular topic." A full index will be introduced at the end of the work. America is said to be the land of big things, and its title to the claim will not be belied by the Handbook now under review. We look forward with much interest to the production of the remaining seven volumes.

On the Supra-pubic Operation of Opening the Bladder for the Stone and for Tumours. By Sir HENRY THOMPSON, F.R.C.S., Surgeon Extraordinary to His Majesty the King of the Belgians, Consulting Surgeon to University College Hospital, late Professor of Surgery and Pathology to the Royal College of Surgeons of England, &c. London: J. and A. Churchill. 1886.

THE operation of supra-pubic lithotomy is undergoing a revival, as frequent notices in our pages during the last few years have sufficiently shown. It bids fair to supplant perineal lithotomy altogether; it is not without a pang of regret that older surgeons especially will part with an operation which has always possessed a special fascination, and the history of which is connected with many of the brightest names in surgery. The careful dissection through the abdominal wall on to the front of the distended and raised bladder bears but a very slight resemblance to the bold and rapid plunge into the viscus from the perineum, which in the hands of Fergusson and other brilliant lithotomists was the admiration of all spectators. The claim of the supra-pubic operation, however, is very strong, and the publication of Sir Henry Thompson's book will do much to impress its merits upon the minds of British surgeons, who have been slower to recognise them than their continental brethren. Two names will be associated with the revival of this operation—Garson and Petersen. To Dr. Garson of the Hunterian Museum belongs the credit of demonstrating the remarkable influence upon the bladder of full distension of the rectum, which so raises the viscus as to expose a considerable extent of its anterior surface bare of peritoneum above the pubes. To Petersen belongs the credit of availing himself of this anatomical demonstration and of supporting Dr. Garson's argument by clinical experience. All this, and very much more, of the history of the operation is told by Sir Henry Thompson, who gives a lucid description of the details of the procedure and the subsequent management of the patient, and appends notes of the cases in which he has himself practised the supra-pubic method. These cases include six instances of the removal of large stones, and two of the removal of large tumours. Dr. Tremaine of Buffalo has lately recorded three interesting cases in which he has successfully performed what he would have us call epicystotomy. In one case a stone measuring 2⅞ in. by 1½ in. was removed from a child three and a half years old; in the second case fragments weighing altogether over three ounces were removed from a man aged thirty; and in the third case from a man aged seventy-three a mulberry calculus measuring 1⅝ in. by 1 in. was removed. In the last case the peritoneum was wounded, and the intestines protruded from the wound after the man was returned to bed. In the second case the wound in the bladder was sutured. In neither case was Petersen's distension of the rectum employed. Dr. Tremaine, like Sir Henry Thompson, found the fingers the most convenient means of extracting the calculi.

Acne: its Etiology, Pathology, and Treatment: a Practical Treatise based on the Study of 1500 Cases of Sebaceous Disease. By L. DUNCAN BULKLEY, A.M., M.D., Physician to the New York Skin and Cancer Hospital, &c. Pp. 280. London: J. and A. Churchill. 1885.

THIS well-got-up volume is in some respects a companion one to that on Eczema which has been favourably noticed in these columns. It is written in a similar practical way, is largely in accordance with views held in this country, and is characterised by careful details as to treatment, by a copious formulary, and a chapter on diet and hygiene. The pathological anatomy of the eruptions is minutely studied, and the beautiful illustrations of Dr. Bulkley's specimens form a striking feature of the work, and are especially valuable. We must also mention the addition of a very extensive bibliography, so that the volume is one which is very acceptable both to the worker at these diseases and to the practitioner. The author uses the term acne in its widest sense, and defines it as a functional or inflammatory disease of the sebaceous glands, exhibiting excessive and abnormal or deficient secretion of sebum; or the inflammatory elements of congestion, papules, pustules, or tubercles, located in and about the sebaceous glands, or in any or all of these features combined. The term therefore includes the diseases known as seborrhœa, comedo, and milium, sebaceous cysts, the ordinary inflammatory acne and rosacea, A. atrophica, and A. cachecticorum. Molluscum

contagiosum is removed in accordance with recent pathological work from its time-honoured position as a sebaceous gland disease. In such a considerable volume we think the author might have rendered it still more useful by a more detailed exposition of certain points. For instance, there is only the barest discussion of that very interesting condition called stearrhœa nigricans, nor are there many references in the bibliography, because, we take it, some authors describe it as a sweat gland affection. The work is also far from being an exhaustive one, and in illustration of this we may mention the absence of any description of the peculiar follicular condition described by Cock, or of an explanation of the presence of sebaceous cysts on the palms. On one or two points we are inclined to criticise Dr. Bulkeley's descriptions—e.g., with regard to A. cornea, A. atrophica, and A. cachecticorum. Concerning the latter he follows Neumann, but does not tell us much of his own experience. We know but little of such an affection in this country. He describes A. cornea as a seborrhœa characterised by horny concretions in masses rarely exceeding half an inch in diameter; but this is surely not the disease described by Hardy. We think the description of A. atrophica decidedly poor, and we notice the author makes the old mistake between A. varioliforme or molluscum contagiosum and A. varioliformis. The latter, as we know it in this country, is rare, and is to be distinguished from deeply pitting acne in a scrofulous subject, and from relapsing acneform syphilides of the forehead and face. Its distribution, its remarkable pitting with the sunken scab, and its intractability to the ordinary acne remedies are characteristic.

OUR LIBRARY TABLE.

Report on an Outbreak of Enteric Fever in the Urban Sanitary District of Swansea. By EBENEZER DAVIES, Medical Officer of Health.—This outbreak, which occurred in the later part of last year, and which has since been carefully discussed in a report by the medical officer of health, has points of much interest. As many as 549 cases of enteric fever occurred, or 7·53 per 1000 of the inhabitants; and Mr. Davies was able early in his inquiry to eliminate milk-supply or defective drainage as a possible cause, and to show that the disease was confined to the drinkers of water from two reservoirs situated about eight miles from Swansea, the drinkers of water from local wells escaping illness. The conduits from the two mains are united about a mile from their commencement, and one common main conducts the water from both to Swansea. A detailed account is given of the opportunities for pollution of this water at one reservoir. The condition of one farm situated about 400 yards from the reservoir is mentioned as being one of indescribable filth, which would be easily washed into a tributary of the reservoir. Other surroundings were much of the same character, and the pollution of the town water with excremental filth was practically unavoidable. All that was wanted for the purpose of infection of Swansea was the admixture of enteric excreta with the ordinary filth of the neighbourhood, and this opportunity was abundantly afforded. The chief points of interest are, first, that chemical analysis of the water gave no evidence which would lead to its being regarded with suspicion, although it was analysed at a time when it was undoubtedly giving rise to disease; the second, that it became necessary to supply again to the town water from the infected reservoir after a short interval of time, and after much dilution, without the production of any extension of disease. The outbreak was well investigated; and it may be hoped that the local authorities of the district will adopt the recommendations embodied in the report.

The Journal of Anatomy and Physiology. Vol. 20, Part 1, 1885.—The Editors, Professors Humphry, Turner, and McKendrick, give notice that with this part the journal ceases to be issued by Messrs Macmillan and Co. and will be published by Messrs. Williams and Norgate. The chief articles in this part are: 1. A very good paper by C. B. Lockwood on a subject that might have been supposed to be worked out—viz., the Anatomy of the Muscles, Ligaments, and Fasciæ of the Orbit, including an account of the Capsule of Tenon, the Check Ligaments of the Recti, and of the Suspensory Ligaments of the Eye. 2. An article by H. St. John Brooks on two cases of Abnormal Coronary Artery of the Heart arising from the Pulmonary Artery, with some remarks upon the effect of this anomaly in producing Cirsoid Dilatation of the Vessels. 3. Mr. Ward Collins describes a Second Bursa connected with the insertion of the Biceps, and discusses some Rare Abnormalities. 4. Mr. Ernest Maylard gives some Abnormalities of the Lobes of the Human Lung. 5. Mr. J. Bland Sutton discusses the Nature of Ligaments. 6. Dr. Woodhead and Dr. Hare describe the Vital Relations of Micro-organisms to Tissue Elements. 7. Dr. J. Lockhart Gibson considers the Blood-forming Organs and Blood-formation. Dr. Noel Paton describes the Relationship of Urea Formation to Bile Secretion. 8. Professor Turner suggests the Index of the Pelvic Brim as a Basis of Classification. Lastly, the same anatomist gives the Anatomy of Sowerby's Whale.

The Quarterly Journal of Microscopical Science. Edited by Professors LANKESTER, DYER, KLEIN, MOSELEY, and SEDGWICK. New Series, No. 100. London: J. and A. Churchill.—From a notice issued with this part, we are glad to draw the conclusion that sound and careful microscopical research is on the increase, for the editors observe that the issue of supplementary numbers being found inconvenient, and an accumulation of valuable material remaining on hand, it has been decided to publish the journal henceforth at such intervals as may seem desirable rather than delay the appearance of the memoirs in question. The present number contains five articles and ten plates. 1. On the Chromatology of the Blood of some Invertebrata, by C. S. McMunn. 2. The Cephalic Appendages of the Gymnosomatous Pteropoda, by Dr. Paul Pelseneer. 3. Evidence in favour of the View that the Coxal Gland of Limulus and of other Arachnids is a Modified Nephridium, by G. Gulland. 4. Notes on the Embryology of Limulus, by J. S. Kingsley. 5. The Anatomy of the Madreporaria, by E. Herbert Fowler.

Jahresbericht über die Fortschritte der Pharmakotherapie. By Dr. KOBERT. Second Volume for 1884. Published by Karl Trübner. 1885.—This is an excellent compilation, and ought to prove of much service to the numerous workers in therapeutics and pharmacology. The information that it contains has been garnered from the most varied sources. There are references and abstracts on no less than 1867 subjects. There are indexes of authors as well as subjects. A glance through the book shows the remarkable character of much of the matter that it contains. We can fearlessly say that many of the names of the remedies herein treated of will sound very curiously to the ears of many medical men. Lippia mexicana is not a familiar remedy, but it appears to have been used with good effect in acute catarrh of the respiratory passages, as in other cases of cough and shortness of breath. It is a South American verbena which, according to Podwyssotski, contains an ethereal oil and a kind of camphor. Its nearest therapeutic ally is turpentine. This is the sort of information with which the volume abounds.

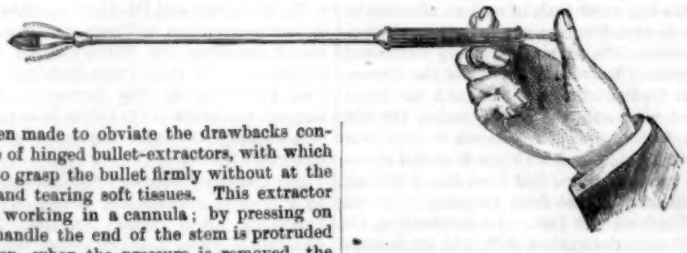
Orient Line Guide: Chapters for Travellers by Sea and by Land. Edited by W. LOFTIE, B.A. Pp. 309. London: Sampson Low and Co. 1885.—This is a second edition of a guide-book drawn up for the managers of the Orient Line of steamers with a view to give correct information as to the facilities

afforded by the company in the way of communication with our colonies, especially the Cape, Australia, and New Zealand. It contains much information, evidently collated with great care, which cannot fail to prove useful to intending travellers The advice given with regard to occupation, amusement, and attention to health during the voyage is judicious. The volume gives an account not merely of the various places to which the Company's steamers run, but also of those at which they call or which they pass *en route*, and of such places of note as can be easily reached from the different ports of call. It is illustrated with a considerable number of maps and charts, views of places that may be visited, and plans and portraits of the Company's ships. In addition to a copious index, a list is given of standard books on Australia, Egypt, and Italy. The names of the contributors to the volume, including G. Baden-Powell, Norman Lockyer, H. C. Middleton-Wake, and Mrs. H. Fawcett, are sufficient guarantee for the quality of the information afforded.

New Inventions.

A NEW BULLET-EXTRACTOR.

MESSRS. ARNOLD AND SONS, of West Smithfield, have patented a new bullet-extractor, which is here figured.



An attempt has been made to obviate the drawbacks connected with the use of hinged bullet-extractors, with which it may be difficult to grasp the bullet firmly without at the same time seizing and tearing soft tissues. This extractor consists of a stem working in a cannula; by pressing on the button at the handle the end of the stem is protruded and opens, and then, when the pressure is removed, the blades fall together as the stem is withdrawn into the cannula. By this means the bullet, when once grasped, is securely held during extraction, and the surrounding tissues are not liable to be seized or torn. Should the bullet be so firmly embedded in the tissues that the pressure of the soft parts equals the power of the spring to open the blades, the extractor is useless.

CULLEN AND CROFT'S HOUSEHOLD DISINFECTOR.

WE have received a specimen of a convenient apparatus for the evaporation in a room of a disinfecting agent, such as thymol. The device consists of a bracket supporting a half-pint bottle, with a metal-covered cork, to which is attached a strip of cloth which lies immersed in the disinfectant, like the wick of a lamp. Means are provided for keeping the cork suspended over the mouth of the bottle as long as may be desired, leaving a portion of the saturated cloth exposed to the atmosphere. The apparatus is simple and inexpensive, and likely to be very useful. It may be obtained at the London Supply Company, 73, Ludgate-hill, E.C.

ON THE TREATMENT OF ANEURYSM WITH IODIDE OF POTASSIUM.

To the Editor of THE LANCET.

SIR,—In the last number of THE LANCET (Feb. 6th), Dr. Burney Yeo, in a paper on Clinical Therapeutics, remarks that "one of the most remarkable gains in the treatment of disease in recent years has been the employment of large doses of iodide of potassium in the treatment of internal aneurysms." With Dr. Yeo's permission, I wish to substitute "sufficient" for "large." Large doses are not necessary, and are sometimes injurious—at least if by large we mean doses over twenty grains. Nowadays, I believe, we have a perfectly trustworthy means of ascertaining when we are administering a dose which is sufficient. As soon as it was found to be probable that the iodide of potassium owed its curative virtues in aneurysm to its power of lowering the blood-tension, it also became evident that failures which were generally accompanied by an unduly quickened cardiac action were most likely dependent on too great a lowering of the blood-pressure; because this would not only account for the excited action of the heart, which had an unfavourable influence on the aneurysm, but would also permit the blood to flow away too rapidly to provide for the due nutrition of the tissues. But the cure of an aneurysm depends upon the hypertrophy of its coats, which cannot be effected without a certain amount of blood-pressure, neither can it occur if the blood-pressure remain at the normal, for all experience teaches us that the effect is then one of gradual though slow dilatation, with pressure corrosion of all the surrounding tissues. Hit the happy mean, and the effect is that the arterial coats behave like a hollow muscle, which hypertrophies when opposed to an obstacle with which it is able successfully to cope. To hit this happy mean and ascertain the proper dose, the patient is put to bed without any other treatment, and his pulse-rate ascertained night and morning for a few days. So soon as his average pulse-rate in recumbency is ascertained, he is put upon ten-grain doses of iodide of potassium every eight hours. If the pulse-rate remains unchanged the dose is increased to fifteen grains every eight hours, and every week an increase of five grains each dose is made till the pulse-rate begins to rise. In this way it has been ascertained that fifteen grains to a dose is seldom able to be exceeded, while it has often happened that ten grains has been found to be the most advantageous quantity. It is quite easy thus to find out what is a sufficient dose, and this has more than one advantage. With too small a dose we can do no good; with too large a one we do harm; we certainly delay the cure, and we may prevent it altogether. With a proper dose three months is generally sufficient to establish a marked improvement, instead of six months, the usual time before accurate dosage was resorted to. Now, also, we may say that the amount of relief obtainable from treatment in aneurysm is largely due to the period when the case comes under observation. If it is diagnosed early before there is much destruction of the arterial coats and surrounding structures, the cure is often practically complete. If the case is not seen till far advanced, then relief is all we can aspire to, but the relief to symptoms is often very great and remarkable, and it increases year by year. This doctrine as to the action of the iodide of potassium in aneurysm was carefully worked out clinically, and first enunciated in the *Edinburgh Medical Journal* for June, 1876, at p. 1142, and in the *British Medical Journal* for April 5th, 1879, at p. 511, forming part of the reported discussion as to the treatment of internal aneurysms at a meeting of the Glasgow Pathological and Clinical Society on March 5th, 1879, and it will also be found *in extenso* at pp. 453-463 of the second edition of my work on Diseases of the Heart, 1882. I mention these facts, as I have noted in various papers and published works an amount of ignorance on the subject not creditable to the research of the authors.

I am, Sir, yours sincerely,

Edinburgh, Feb. 9th, 1886. GEORGE W. BALFOUR.

THE LANCET.

LONDON: SATURDAY, FEBRUARY 20, 1886.

DR. OGLE'S communication to the Statistical Society of London on the subject of suicide is one of great interest and considerable value. The manner in which he has treated the matter shows the skill and, which is equally essential, the caution of an intelligent expert in statistics. There are statisticians of high attainments in the art of collating returns who are not intelligent. The story which Dr. OGLE had to tell is sufficiently lugubrious. During the twenty-six years 1858–83 no fewer than 42,630 persons appear on the records as having died by suicide in England and Wales. The actual number is doubtless greater than this, as the returns "found dead" are not included. As regards age, during the period named only two children under ten have died by their own hands, but from fifteen to sixty-five years of age suicides increase rapidly. The greatest proportional rise occurs between twenty-five and thirty-five, when the majority of men and women come to face life in its reality, and find how hard and cruel it is. After sixty-five, as we should expect, the rate falls. Sex affects the question. Thus, setting aside age for the moment, the rate per 1,000,000 is 104 for men, while it is only 41 for women. Looking to the age-distribution in the adjustment of proportion in relation to sex, Dr. OGLE gives the suicides among males as against suicides among females as 267 to 100. Men have to bear the brunt and worry of life, and upon them chiefly falls that trouble of mind which is the main cause of self-murder. Occupation plays a part in the issue. Soldiers stand first on the list. Inn and hotel servants come next; then innkeepers, publicans, spirit, wine, and beer dealers. Medical practitioners follow close upon the publicans, the figures being almost identical; and chemists and druggists come a very short way behind. Barristers and solicitors are not greatly less prone to commit suicide. Butchers, fishmongers, poulterers, greengrocers, and fruiterers are about on a level with barristers in regard to the probabilities of death by self-murder. The occupation least predisposing to suicide, if it were permissible to look at the matter in this way, would seem to be that of a miner, perhaps because the risks to life in that calling are sufficiently numerous without importing extraneous modes of death by violence. Shipwrights and shipbuilders are the next contented class. Next above the last stand clergymen, priests, and ministers, though considerably above; thus, while the suicides among miners are only 74 per 1,000,000 living, and those among shipwrights are 96, the clergymen &c. number 139. The enormously high proportion of suicides among soldiers, 1149 per 1,000,000 living, while the proportion for "all males" is only 222 per 1,000,000, is very remarkable. Dr. OGLE has, as we have said, been careful to take age-distribution into account when dealing with the question of occupations, but we are not so sure that he has given full effect to the trade-distribution. He says, "To compare the suicide-rates of such contrasted occupations as these, without any regard to the difference of age-distribution, would clearly be absurd," and he has taken means to avoid the risk of error in this respect; but has he also guarded against the error of ignoring the distribution of occupations? For example, if a particular calling is one which bears a large proportion as regards the number of persons engaged therein to the numbers of persons engaged in other trades respectively, it is manifest that any general rate must be localised in the particular class proportionately; and the rates of the several classes will compare well with each other and with the total of living persons in due relation. We need a table showing the proportions of the total population engaged in different occupations to test the value of the occupation-tables in Dr. OGLE's computations. Doubtless the author had such a table at hand, and probably he used it, but the reader might with advantage have one also. The importance of the point raised may be stated thus: If the persons occupied as soldiers numbered, say, 60,000, and the medical practitioners were 20,000, obviously the same rate as regards the general population would produce three times as many soldiers among the suicides as among the doctors. So with all the other occupations. The proportion of suicides in each occupation must obviously bear a constant relation to the relative number of persons engaged in it, and it is only the *excess* or *deficiency* which would characterise the occupation as a cause or preventive of suicide. We want to know more than Dr. OGLE tells us on this point before we can draw practical deductions. The bearing of the statistics furnished on seasons is very noticeable. The greater number of suicides occur in May and June, slightly more in the latter month. The author states the belief, although he does not endorse it, that the heat of the weather may tend to induce insanity; but surely it is nearly as hot in July as in June, and hotter than in May, and yet the suicides in July fall considerably, while in August they are less again. The truth is that in May and June the worries arising out of the financial disasters of the preceding year culminate in law proceedings, and the embarrassed are brought face to face with the final issue of their difficulties. Then they succumb. In December the number of suicides is scarcely more than half as great as in June. Dr. OGLE remarks: "Possibly the explanation may simply be that as the days grow longer the movement of life, be it for business or for pleasure, becomes more and more active; and that the changes in the amount of suicide correspond to the consequent changes in the amount of mental excitement." November, which used to be popularly considered the month of suicides, is among the least prolific; only December and February are below it. We cannot help thinking that the relation is closer with periods of greatest anxiety with respect to money matters than to weather or other circumstances of existence. As regards methods of suicide, hanging is the most common; drowning and throat-cutting or stabbing come next in order, then poisoning, gunshot, jumping from a height, and last by railway train. Men, as a rule, hang themselves or cut their throats. Women generally commit self-murder by drowning or hanging; in a lower proportion they take poison. If men use poison for the purpose of suicide, it is most frequently prussic acid, oil of almonds, or cyanides, and next laudanum. Women choose laudanum or employ a

vermin-killer, probably because the latter falls easily in their way. Speaking generally, a man resorts to some means within his reach or suggested by his occupation. Thus, chemists and druggists, medical practitioners, and photographers poison themselves; soldiers use firearms; butchers cut or stab, though they slightly prefer hanging, and so on. Clergymen, lawyers, and independent gentlemen use firearms; but all classes exhibit a tendency to resort to the rope, doubtless because it is considered the easiest mode of death, and because the appliances are always at hand. One curious fact in connexion with the choice of method Dr. OGLE states briefly thus: "If the year be divided into two periods of six months each, the one from October to March, the other from April to September, inclusively, out of 1000 suicides committed in each period there are in London, on an average of twenty years, 205 suicides by drowning in the warmer period, and only 177 in the colder period. This is only another example of the fact which came out more strongly when the choice of poisons was under review—namely, that even when about to commit suicide, persons are not indifferent to considerations of comfort or discomfort. The idea of death in cold water appears repulsive in winter seasons, and that method of self-destruction is avoided."

The paper, as a whole, is replete with materials for a statistical study of the subject of suicide, and will do good service by throwing light on a question of painful but urgently grave interest. "The total chance of dying by suicide," as Dr. OGLE calculates it, "is much more considerable than would probably be supposed by anyone who had not examined the question: few, for instance, would imagine that one out of every 119 young men who reach the age of twenty dies ultimately by his own hand. Yet such is the case." In face of figures so startling as these, it cannot be gainsaid that the subject of suicide is appalling in its magnitude. We must defer the mention of considerations arising out of the psychology of the question which Dr. OGLE rather suggests than undertakes to discuss. The Society before which his paper was read being purely statistical, the author properly restricts his view to that aspect of the topic; but there are others in respect to the study of which his excellent compilation will greatly help us.

IN the minutes of the meeting of the Council of the College of Surgeons, which we published last week, there is no word of allusion to what we may call the differences at present subsisting between the Council and the Fellows and Members at large. On the other hand, the Council seem to be pushing on with their own schemes. Authority was given to the Building Committee to make the necessary arrangements for the ceremony of laying the foundation stone of the new Examination Hall, which it has been decided to build in conjunction with the College of Physicians. Meanwhile, Mr. HUTCHINSON'S motion concerning the Fellowship has not yet been reported upon, although two months have elapsed since the committee for that purpose was appointed. Outside the Council, however, there are evidences of activity that can hardly fail to lead to results. The Association of Members has now in circulation for signature a petition to the Queen in Council, praying that no alterations be granted in the present Charters unless the same provide for the due representation of the Members on the Council of the College, and the exercise of other privileges which pertain to membership of a corporate body. This is reasonable enough. But something more is required of the Association than this. It must show itself to consist of practical politicians, and to this end must definitely draw up and publish a confession of political faith. On what grounds are they ready to treat with the present Council? On what grounds are they ready to join the Association of Fellows? Although for the purposes of the last public meeting some agreement was arrived at by the two Associations, or rather by their delegates, we are not aware that the Association itself has definitely agreed upon the nature of the suffrage they are seeking. Now, it is most important, in order to secure the co-operation of the Fellows and of the best and oldest of the Members, that an authoritative statement should be made to serve as a basis of action. In other words, a complete draft scheme of reform should be drawn up, the assistance of some experienced Fellows of the College, and even legal assistance, being secured in order to make it thoroughly reliable and workable.

Of first importance is the decision of the necessary standing as Member to secure a vote, and for eligibility to sit on the Council. Next, in what proportion to the Fellows *may* Members be chosen. It must be decided whether Members *may* or *shall* sit on the Council, or whether it shall be optional with the constituents to elect councillors irrespective of title. Of hardly less importance will be the method of voting, the formation and maintenance of a register, the amount of fee (if any) to be paid, whether Members resident beyond the United Kingdom shall be eligible for registration, and a variety of other questions of a like kind. A draft scheme of some kind ought certainly to be ready when the proper official, through whom the petition would be taken to the QUEEN, is approached for this purpose. We can hardly doubt that if a scheme of reform could be drafted on liberal yet moderate lines, keeping the academical and the political status quite distinct, and free from any personal element, there would be a large access of support which at present holds aloof on account of the uncertainty of the aims and objects of the present reform movement. Further than this, which, however, is a necessary preliminary step, the Association of Members should seek alliance or amalgamation with the Association of Fellows. Such a union would give a strength and moral weight to each of the Associations which neither can exercise alone. The Members especially would gain, for they have only just awakened to their position; while among the Fellows there are some who have given thought and study to the matter for a good many years past. The Association of Members would do well to endeavour to secure the help and assistance of one or two of the more active members of the Fellows' Association in drafting their reform scheme. There are two gentlemen who are, before all others, conversant with the history and Charters of the College, and it has been largely through their initiative and practical common-sense that so much progress has latterly been made. Nor should the Association lose any time in securing the patronage and help of the medical members of Parliament.

In his letter, published last week, Mr. TWEEDY suggests several points which the promoters of the new Charters must steer clear of, one of the chief being "exclusiveness." The present Council, he shows, "is a much less representative body than is commonly supposed"; for, though avowedly elected by the voice of the 1100 Fellows, each individual member is really the nominee of some six-score private friends. Mr. TWEEDY further points out that, owing to the restrictions enforced by the Charter, the area of selection is reduced to a few old or middle-aged surgeons connected with the London hospitals. This exclusiveness has probably never struck the majority of our readers in its full sense; it is probable that the members of Council themselves hardly realise how little they represent the Fellows even, and how completely out of touch they are with the great body of the Members of the College.

In urging the Members to join hands and push forward, we must nevertheless counsel moderation. Their strongest argument in favour of obtaining the rights which have so long been denied will be a business-like conduct of their present campaign; and no better proof of fitness to exercise these rights can be given than the moderation they use in winning them.

IN selecting as the subject for his Lettsomian Lectures 'Some Moot Points in the Natural History of Syphilis" Mr. JONATHAN HUTCHINSON made a very wise choice. Syphilis is a disease which is always present amongst us. It comes in some form or another before the notice of every medical practitioner, whether specialist or general. It is also a disease which, though most amenable to treatment when diagnosed at its onset and promptly treated, is the immediate cause of death to a large number of infants, and the primary cause to a very large number of adults every year. Its early diagnosis and prompt treatment are therefore matters of paramount importance, and Mr. HUTCHINSON is to be congratulated not only in his choice of a subject, but also on the able manner in which he has handled it. The literature of syphilography is quite as marvellous as that of any other department of medicine or surgery. Practitioners are living who can remember the days when gonorrhœa was treated with mercury, even to profuse salivation, on the principle that it and syphilis arose from a common poison, for which mercury was the sole cure. To a very large extent syphilis was till a comparatively recent period ostracised from medical societies and medical literature, much in the same way that syphilitic patients of the lower orders are still ostracised from our general hospitals and relegated to a few lock hospitals and wards or to the out-patients' departments. The treatment of venereal diseases was viewed askance by legitimate practitioners, and a reputation for their treatment was rarely sought, this being left to quacks and chemists—a condition of things which still lingers amongst us, though happily to a greatly reduced extent. To these and other causes, but principally the former, is to be attributed the fact that the average general practitioner is more or less imperfectly acquainted with syphilis, and that even among specialists in venereal diseases there should be there "moot points" still remaining to be decided. Hence also arises the circumstance alluded to by Mr. HUTCHINSON: how comparatively young is almost all our knowledge as to the transmission of syphilis from parent to child. The various works published in this country on the subject of syphilis have seldom gone beyond a second edition, while many have not even reached this. In his many writings on this disease, and more especially in his article on Constitutional Syphilis in "Reynolds's System of Medicine," Mr. HUTCHINSON has treated the subject with a vigour and freshness which make it much pleasanter reading than previous writers have succeeded in making it, and the recent Lettsomian lectures are no exception to this rule. All the various questions of unity or duality, phagedæna, recurring chancres, syphilis after vaccination, the relationship of tertiary to secondary symptoms, nerve affections, the position of rupia and psoriasis palmaris, mercurial treatment, recurrence of syphilis after long treatment, and, last and most important of all, the question of hereditary syphilis,—these are all discussed with an ability which must commend them to the attention of all who peruse them.

But while wishing to do ample justice to the ability with which Mr. HUTCHINSON has treated a difficult subject, it must be admitted that some of his conclusions are at variance with those of other writers whose experience and ability cannot be questioned. Mr. HUTCHINSON is not free from the error into which so many writers on syphilis have fallen—namely, that of being too positive. Thus, in his first lecture it is clear that he regards all venereal sores as related to syphilis and not independent. "If a person who has never suffered before contracts a venereal sore of any kind, it is highly probable that it will lead to syphilis." Mr. HUTCHINSON adds, in confirmation of this, the statement of Mr. MORGAN, of Dublin, that of fifty-four patients with first attacks of venereal sores, fifty were proved to have true syphilis. It would be very interesting to have some additional details as to these cases. Was the period of incubation short or long? Was induration present? Were the inguinal glands affected? Are we to assume that because they are termed venereal sores, all these indications were absent? Considering how many men suffer from a chronic excoriation of the inner prepuce, and the filthy state of the vagina in many prostitutes, there seems nothing improbable in the belief that sores may arise which will be long in healing, and may yet be perfectly independent of syphilis. Then as to phagedæna. Mr. HUTCHINSON'S views are not confirmed by the experience of Mr. JAMES LANE, Mr. BERKELEY HILL, and other hospital surgeons; nor is it proved that phagedæna is more prevalent in lock than in surgical wards. In his second lecture, Mr. HUTCHINSON makes a somewhat remarkable contradiction. He says that if a small dose of grey powder be given to a patient with an indurated sore, but in whom as yet no secondary symptoms have appeared, the result will usually be that none will appear; but further on he says that if at the end of a six months' course the remedy be stopped, an outbreak of symptoms will occur within a few weeks of its suspension, and that this usually takes the form of an erythematous or lichenoid eruption. There are many other points to be noted which can scarcely be comprised within the limits of one article. Enough has been said to show that the "moot points" must remain such till more and varied experience

has been brought to bear upon them. Hence the importance of carefully noting all the varieties of diagnosis, prognosis, and treatment in every case of syphilis which comes to the notice of the general practitioner or specialist.

DR. AUSTIN FLINT may be called the WATSON of the United States. A very admirable specimen of his writing and thinking as a practical physician is a paper read by him before the New York County Medical Association on November 16th, and contained in the *Journal of the American Medical Association* for January 9th, and entitled Elements of Prognosis in Bright's Disease. The general purport of the paper is to encourage a more hopeful, or, at any rate, a less gloomy view of the disease than is commonly entertained either by the public or the profession. His main conclusions may be thus summarised. Acute Bright's disease, as a rule, does not tend to a fatal result. A subacute diffuse nephritis occurs not only after scarlet fever and other infectious maladies, but irrespective of these, and is liable to be mistaken for chronic morbus Brightii. It can only be distinguished by the disappearance of all signs of renal disease after some weeks and the recovery of health. As regards prognosis in chronic Bright's disease, Dr. FLINT considers its frequent latency to be a very important clinical fact—that is, there may be no important symptoms apart from the result of an examination of the urine. For this to be the case three conditions must obtain: first, the kidneys must not be damaged beyond a certain extent; secondly, the important organs of the body other than the kidneys must be fairly healthy and efficient; thirdly, the laws of health relating to alimentation, exercise, exposure to cold, mental excitement, and habits of life must be observed. Given these conditions, he thinks there might be a lesion of the kidneys, diminishing their functional ability to one-half, but not in its nature progressive, which would be compatible with the indefinite continuance of life and health. Dr. FLINT is brought to this conclusion, not only by his experience as a physician, but by the recent demonstrations by surgeons that nature has endowed us with twice as much renal tissue as we absolutely need for purposes of life. Dr. FLINT insists on the importance of a careful examination of the urine, not only as to the presence of albumen and casts, but as to the quantity of urine and its specific gravity. The liability to grave uræmia depends not only on the state of the urine, but on other accessory facts, of which two are important—the chance of vicarious elimination by other organs, and the comparative insensibility of some persons to the toxical effects of uræmia. In cases of uræmic coma or acute œdema of the lungs the prognosis is of course grave, but Dr. FLINT even here is not hopeless, and has seen cases of recovery. His suggestion is that the attacks are due to an intercurrent, acute or subacute, nephritis, which under proper care and treatment passes off. Of one complication, "renal asthma," or dyspnœa without pulmonary affection, on the other hand, Dr. FLINT speaks with no hope. He regards it as probably due to a toxical effect on the respiratory centre in the nervous system. We give prominence to this paper, not only for its own sake, but as a good specimen of the quality of looking for the best side of bad facts, which is one eminently for cultivation by medical men, and which has been rather discouraged since pathological processes engaged so much the study of physicians, apart from the time they have occupied, and the circumstances favouring or retarding them. Dr. FLINT is not alone in this estimate. We once asked Dr. JOHNSON how long he had known a case of albuminuria to extend? He replied thirty years. We may safely conclude that a disease which could be extended over thirty years might with more care extend over forty, and leave life very much uncurtailed. But this implies great care on the part of the patient and physician alike.

LAST Saturday the Metropolitan Asylums Board resolved, on the recommendation of their General Purposes Committee, to erect at Gore Farm a hospital for the accommodation of 600 persons suffering from small-pox. Sir EDMUND HAY CURRIE, in bringing up the report, described the amount of hospital provision which would then be available at the time when small-pox next assumes epidemic prevalence in the metropolis. The Committee estimated that the five London hospitals would provide 40 beds each, or 200, the hospital ships another 300, making, with the proposed hospitals, 1100 beds for cases of small-pox. We fully sympathise with the desire of the Managers not to delay the steps which must be taken to meet the exigencies of the next epidemic, but we see with a feeling akin to dismay the complete absence of any appreciation of the need for a thorough reconsideration of the whole subject of hospital provision for small-pox. The Managers adopted a resolution which contains an expression of satisfaction at the "success which has attended the new departure in the treatment of small-pox cases in accordance with the recommendations of the Royal Commission." There has not been wanting evidence that this departure, as interpreted by the Managers, is attended by serious consequences.

The hospitals at Fulham and Hampstead have been definitely shown to be a fertile cause of disease to the neighbourhood in which they are placed. The evidence against the other hospitals is considerable, yet the word "success" is associated with the system that includes their use. For some time a controversy has been going on between the Local Government Board on the one hand and the Metropolitan Asylums Board on the other as to the continued use of the land hospitals or the ships on the river, and the latter Board, probably influenced by the unfortunate results which have attended the use of the land hospitals, have persistently declined to close the ships. This is a matter upon which the lives of a number of people are dependent, and it might be expected that in view of such serious issues both Boards had exercised all their powers to learn whether the misfortunes which have befallen the residents near to the land hospitals have been shared by those who live in the neighbourhood of the ships. So far as any information is available, there is reason to believe that the Local Government Board have made inquiry as to the influence of one hospital, that at Fulham; while the Metropolitan Asylums Board have taken no step to obtain any knowledge whatever of the results of their procedure, and this is all.

We cannot but regret the decision of the Metropolitan Asylums Board to embark in fresh and large expenditure until the best method of the construction of small-pox

hospitals has been fully determined. The proposed institution is probably intended for convalescents, and Mr. POWER'S observations have led us to hope that hospitals containing patients in this stage of disease are not capable of disseminating infection to the same extent as those containing persons in the early stages of small-pox. But in practice we anticipate that the Managers will remove from London all persons suffering from small-pox who can bear the journey, and if this course be adopted the institution will in its use be similar to those institutions which have become known to be a source of danger to the neighbourhood in which they are placed. Last week we pointed out that only a portion of the recommendation of the Royal Commission had been adopted, and we recur to this for the reason that any further large expenditure ought only to follow the fullest investigation of the effects of aggregation of severe mild, and convalescent cases of small-pox.

Annotations.

"Ne quid nimis."

THE EXEMPTION OF PUBLIC CHARITIES FROM RATES.

WE have already expressed a strong opinion on the unreasonableness of assessing hospitals and other charities for the payment of poor rates and other local rates. A powerful statement has been drawn up by direction of the executive committee of the "Charities Rating Exemption Society" for the consideration of members of the Legislature, which we commend to every member of Parliament and to all who can influence members of Parliament. According to this statement, it has been a principle of the Common Law in Great Britain for two centuries and a half to exempt public charities from liability to public rates. This principle has been applied to many kinds of institutions, but its most obvious application is to hospitals supported by voluntary contributions, which are so essentially benevolent in function, and which so obviously relieve not only the poor who cannot pay rates, but the ratepayers and taxpayers themselves, who would otherwise have to support these institutions. The Irish Poor Law Act (1838) recognised the principle. Under the 32 and 33 Vict., cap. 40, Sunday and Ragged Schools were exempt from rating. The Town Improvement Act of 1847, consolidating the various Acts for lighting, paving, and improving towns, exempted buildings devoted to public worship, to gratuitous education of the poor, and to public charity. Such buildings were exempted from even the Income Tax, and from that still more stringent tax, the Land Tax of 1797. Many local Acts contain provisions for the exemption of charities. But law is sometimes very accidental and unsatisfactory in its deliverances, and by a most curious and, to laymen, unintelligible accident, a decision of the judges referring to the liability of the trustees of the Mersey Docks and Harbour Board to be rated to the poor was wrested to apply to charities; and now some charities are rated and others are not. Some hospitals are heavily rated. No Parliamentary authority for their being rated exists, but we presume they pay on the view that it is cheaper to pay than to contest their right to exemption. We can only repeat a strong expression of the injustice and impolicy of subjecting to rates hospitals whose very operation is to keep the poor off the rates. It is perhaps too much to hope for the present, when legislation seems reduced to a mere battle of parties, for party purposes, to gain attention to the claims of institutions which transcend all party considerations. But better days may be at hand, and when they come we cannot doubt that our legislators will exempt genuine charities for the future, as they have been exempted in the past centuries. The paper of Mr. Wood at the Hospitals Association, and the discussion which followed, will do much to place this subject well before the public mind and that of Parliament. It is impossible that the question can remain as it is. Some hospitals are rated and others are not. Some are assessed at a very high rate, others at a very low one. Thus, according to a very interesting table drawn up by Mr. Wood, Guy's Hospital pays for rates and taxes £1400, St. Thomas's £2133, the London Hospital £56, and St. Bartholomew's nothing at all! While certain charities are exempted from rating by specific Acts of exemption, the greatest of all pure charities—the hospitals—remain for the random attacks of overseers. Where these officials are tender-hearted, the hospitals go scot free, or are taxed so lightly that their trustees feel half disposed to let things alone; where the officers are astute, hospitals are heavily rated, as if they were a source of profit to their supporters, and not a great means of lightening the burden of the ratepayers.

UNCONSCIOUS IMPREGNATION.

AT the recent Manchester assizes a man named Jackson, a dentist, was sued for damages for the alleged seduction and consequent pregnancy of a young woman aged twenty-five. The facts, as stated in evidence, were so remarkable that it is not surprising the jury were discharged without giving a verdict. The case is interesting from a medico-legal point of view, and shows the danger of administering anæsthetics in the absence of a third person. It appears that the woman went to Jackson for the purpose of having a tooth extracted, and whilst under the influence of gas the defendant, according to the allegation set forth in the statement of claim, ravished her. The plaintiff at the time was engaged to be married, and it does not seem that she made a complaint to her intended husband of the supposed assault—in fact, she even allowed the banns of marriage to be published, though cognisant that she was *enceinte*. Two questions arise in connexion with the case of the highest import. Is it possible for intercourse with a virgin to take place during the short period of insensibility and semi-consciousness following the administration of nitrous oxide gas? We take it that, although possible, it is in the highest degree improbable. But there can be no doubt that, granted the accomplishment of the act, the answer to the query, "Can unconscious impregnation happen under such conditions?" must be in the affirmative. Cases are on record in which women have conceived during sleep and the state of anæsthesia induced by gas is only another form of sleep. If we are correctly informed of the facts, we cannot understand why the plaintiff proceeded against the defendant by civil process and not by criminal indictment, for if the story of the woman is true, surely the man was guilty of felony. Perhaps the fact that the plaintiff did not make immediate complaint of the alleged assault weighed heavily in the balance on the side of the accused. Such a charge as the one above referred to is difficult and may be impossible to refute, and consequently it is only just that the strongest corroborative evidence should be required to justify a conviction or a verdict for damages, or, failing that, there should be a complete investigation of all the collateral circumstances as regards the conduct of both parties *re* the charge, and also a searching inquiry into their general credit. From an impartial survey of the medico-legal and moral bearings of the case as reported in the *Manchester Guardian*, we cannot help expressing the opinion that upon the evidence before them the jury could scarcely have found for the plaintiff.

VACCINATION ARRANGEMENTS IN PENNSYLVANIA.

THE State Board of Health of Pennsylvania have issued a series of circulars relating to such matters as the precautions to be taken against cholera, the sanitary supervision of travel and traffic, and the precautions to be taken against small-pox. Adverting to the deplorable anti-vaccination agitation in Canada, the latter circular expresses the conviction that the public in the State are generally too well informed and intelligent to take part in any ignorant attempt to thwart the beneficent efforts of the health authorities to check the spread of disease, and they urge the vaccination of all infants within three months of birth, the revaccination of adults, and the adoption by all public School Boards and trustees of a rule requiring that every child entering school shall give satisfactory evidence of having been vaccinated. In this way indirect compulsion would be brought about, but they admit that, in order to give effect to it, the establishment of vaccination stations somewhat on the lines adopted in this country will have to be carried out; and having a desire to give the inhabitants the opportunity of getting lymph direct from the calf, the State Board of Health have decided to encourage the establishment in the immediate vicinity of the cities of Philadelphia and Pittsburg of vaccine farms, under the supervision of skilled physicians, where every provision will be made for ensuring the health of the animals used for the purpose of propagating the lymph, with the most scrupulous cleanliness of their surroundings. From these establishments it is proposed to issue lymph to meet every emergency, and this at the lowest possible price.

THE ARMY CLOTHING DEPOT.

ONCE more an agitation has arisen with respect to the management of the Army Clothing Depôt at Pimlico. It may be remembered that in February, 1878, we published a special report on the contamination of the uniforms provided to the British army. We then proved, firstly, that many persons who attended at the Pimlico factory lived in fever dens, which had not been detected by the authorities and, secondly, that those who were allowed to take their work home sometimes made the uniforms in overcrowded rooms, and by the side of small-pox or scarlet fever cases. The publication of these facts caused so great a sensation that a special inquiry was instituted by Government. Measures were taken to reduce the amount of out-door work, but their principal feature consisted of a reduction of wages. By this means it was argued that the Government factory would be better able to compete with private contractors, who were the greater offenders. But, considering that the ideal wages only equalled an average of 15*s.* or 16*s.* per week, there was not any margin for reduction, if the workers are to be fed and lodged properly. Nevertheless, as time wears on, the policy of management seems still to incline towards lower and lower wages. Great-coats, when made within the Government factory, are paid for at the rate of 2*s.* 2*d.* each for the work expended thereon. When given to workers outside only 1*s.* 10*d.* is allowed, and workers have to find their own material, &c., which is equal to a further reduction of 4*d.* Hence the outside tailoress only nets 1*s.* 6*d.* instead of 2*s.* 2*d.* on each great-coat. This is not the way to promote public health; and how can it be expected that poor women, when thus underpaid, should voluntarily declare the presence of infectious diseases in their midst? Such a declaration would deprive them of their work, and this without compensation. On the other hand, as the work is so badly paid, they cannot be expected to save sufficient to submit willingly to an expensive isolation or quarantine. If it is not our province to discuss the wages question, it is certainly our duty to insist that a liberal allowance should be made to all those who frankly confess that they cannot work because an infectious disease has broken out in their homes. No law at present exists to compel private contractors to make such allowance to their work-people; but the Government may be called upon to set the example, and to give out work only to those employers who follow this initiative. Isolation and disinfection are indispensable, but the one and the other will always be avoided, whenever possible, by those who work on the verge of starvation, unless they are liberally compensated for the loss of employment involved by the enforcement of these sanitary measures.

A READY MEANS OF PRESERVING THE FLUIDITY OF BLOOD.

A STUDENT in Professor Stricker's laboratory, Herr Ernest Freund, has, it seems, suggested a most simple and convenient method of preserving blood in the fluid state. His plan consists in coating the interior of a glass vessel with pure oil. Into this receptable blood freshly drawn is poured, and a layer of oil is then run over the surface exposed to the air. In this way, we are assured, fresh blood may be kept from coagulating for days if necessary. It is difficult to see how so simple an experiment, if once satisfactorily demonstrated, should afterwards be discredited by repetition. We may therefore hope that this apparently trivial application of a physical law will be a real gain to practice as well as research. In particular it should obviously facilitate the operation of transfusion, though it will not entirely replace that still more ready means of treatment, salt solution. It need hardly be said that this mode of preventing coagulation is new rather in its easy and general application than as illustrating a principle for the first time discovered. Professor Ludwig made use of the same idea in estimating the velocity of the blood-current.

PRINCE TORLONIA.

ITALY has lost a great benefactor in Don Alessandro Torlonia. His colossal wealth, amassed in successful banking speculation, was freely spent in the encouragement of art, in the prosecution of public works, in the founding and maintenance of hospitals, and in the relief of the poor. One has only to visit the churches, the basilicas, the palaces, the theatres, and the villas of Rome to see how much of their recent ornamentation is due to his employment of architects, sculptors, and painters, whom his judicious patronage has raised to distinction. The drainage of the Lago di Fucino—an undertaking which had baffled even the Emperors Claudius and Hadrian, with their command of engineering talent and of unlimited slave labour—has restored it to its proper dimensions, reclaimed the arable soil it inundated, and minimised the palustral exhalation that kept the husbandman aloof from its margin. For the completion of this work, which will rank with the Mont Cenis and St. Gothard Tunnels and the Suez Canal as a notable achievement of the century, King Victor Emanuel created its promoter Prince of Fucino, and in honour of the event had a gold medal struck, which the Torlonia family will justly cherish among its title-deeds to nobility. The hospital for the orphan and the superannuated erected and maintained by the Prince at S. Onofrio, the infant asylum and professional school for the upbringing and training of three hundred children of both sexes, and in immediate connexion with this the famous "Ambulatorio chirurgico" organised under the great surgeon Costanzo Mazzoni, are all monuments of the large-hearted and free-handed "Don Alessandro," as the Romans loved to call their unwearied benefactor. Making no pretensions to patrician lineage, the banker-prince represented

far more effectively than the average Italian noble that paternal care for his inferiors and dependants which was one of the redeeming attributes of the feudal system. Though loyal to the Vatican, he frankly acknowledged Victor Emanuel as King of United Italy, and when Garibaldi came to Rome eleven years ago with his plan for deflecting the Tiber, reclaiming the Campagna, and reviving the port of Fiumicino, Don Alessandro gave him a courteous and kindly reception, and sent him away with the conviction that, had the plan been feasible, the money would be forthcoming till its completion. In these days, when the sharp contrast between rich and poor is driving wilder spirits to the "Tartarus incline" of revolution, such wise and wide benevolence as that of Prince Torlonia will have its restraining effect, and reconcile the toiling masses to a social inequality under which there is always opportunity to rise and to crown a successful career with its happiest privilege—"the sweet task of providing."

CAN A HERNIA DISAPPEAR IN A FEW WEEKS?

A SAD case of vexatious prosecution has just been published in the Belgian medical journals. In June, 1883, Dr. Velleman of Brussels was consulted by a lad of eighteen, who said that while lifting some heavy weight he had experienced a severe pain in the groin. On examination, Dr. Velleman found that, contrary to his expectation, the trouble was not of a specific nature, but that a very small inguinal hernia existed. This was reduced and bandaged, and the patient sent to an instrument-maker (who also felt the hernia distinctly) for a truss. Four days afterwards the mother came to Dr. Velleman and asked for a certificate of her son's complaint, nothing being said as to the use that was to be made of it. This she was given, the fee being two francs. The doctor thought no more of the circumstance till in the following August he received a summons to appear before a juge d'instruction, who showed him his certificate and told him that the lad belonged to the militia, and that he had been examined by the militia surgeons, who had stated that he had no hernia, and that he could not have had one as recently as June, so that the certificate was a false one. Dr. Velleman saw the lad and examined him, and found that all traces of the hernia had disappeared. On being questioned by the juge d'instruction as to the exact nature of the hernia he had previously detected, he said that it was "une pointe de hernie inguino-interstitielle," by which he intended to convey the meaning of a hernia but slightly visible, pointing not through a natural opening in the abdominal wall, but through an accidental tear in the aponeurotic fibres. The medical jurists to whom the question was referred reported that there was no hernia, and that it could not have been cured in so short a time. The trial did not come on till March, 1884. His accuser stated that the certificate declared that the lad had a disease which he had not, and that when defendant, who gave such certificates at a cheap rate, found that this one was likely to cost him dear, he invented a name of a disease which was unknown, hoping by this "subtlety" to make people believe in its existence. A penalty of from two to five years' imprisonment was demanded. The court, however, without listening to more than the opening of Dr. Velleman's advocate's speech, acquitted him, and he thought his troubles were at an end. Unfortunately the Belgian law permits an appeal on the part of the prosecutor, and several months after the first trial the unfortunate practitioner had again to appear. For the trial in the Appellate Court he had taken the precaution of fortifying himself with letters from two eminent professors. The letter from Dr. Soupart, Professor of Surgery in Ghent, expressed the fullest approval of all he had done, and justified the term "interstitial" which he had employed; the writer also thought it was quite possible for the hernia to have been cured in two or three months. Another letter from Dr. Debaisieux, Professor of Surgical Pathology in Louvain, expressed a decided opinion that a hernia such as this, caused by a sudden strain in a young man and promptly treated, might disappear in a few days or weeks. "The hernia may probably have pointed through an accidental rupture in the transversalis fascia ..... and the application of a truss after the intestine had been replaced would permit this rupture to cicatrise." He also approved of the phrase used by Dr. Velleman as being appropriate, though not one used by medical authorities. The Court of Appeal confirmed the acquittal without even calling on the counsel for the defence. Thus, after nearly two years of anxiety and worry, Dr. Velleman is finally rid of all accusations and suspicions on account of this charge.

DEAD DOGS.

THE inventor of the lethal chamber, in one of his familiar addresses on the Balance of Natural Forces, gave his listeners the sentence, often since quoted, that "Nature, as chief of all the provident societies, provides that out of the very womb of death shall come the most perfect forms of life." It is not likely that he invented the lethal chamber to illustrate this argument, but it seems it does so marvellously well, as a Medical Officer of Health graphically shows in the *Daily News* of Monday last. The dead dogs from the chamber go down, it seems, to a farm near to London and are piled in heaps with straw and manure until they become fit for the land. One such heap was 30 ft. long, 15 ft. wide, and 6 ft. high. It contained several hundred dogs, and will be left undisturbed from four to six months to rot and decay. Then the heap will be turned over, and after the rotten bodies have been broken up will be reformed, to remain some months longer. Finally, it will be turned over again, and, every semblance of dog gone, it will be given to the land for corn and fruit, and it may be—total abstinence notwithstanding—British home-made wine, cider, and beer. In the transition there must be smell. The Medical Officer testifies to that in no measured terms. But he adds, "the men and boys who turn and cart this stuff seem none the worse for it," and as there are no residences within a quarter of a mile he sees no necessity for any interference. He is content to hope that the British public will enjoy the luscious "British queens and delicate early rhubarb which it gets from its transmogrified dogs." In this hope we join; but perhaps it may be better, as they increase, to spread out these wombs of death a little more widely, and to give them as much air room as may be obtainable for their transmogrification into the most perfect forms of life.

PHTHISIS IN FRANCE.

THE mortality from phthisis in Paris has amounted in two months to more than 1000, and it is reported that with the object of checking this excessive death-rate French *savans* are about to try the principle of inoculation, which under M. Pasteur's recent discoveries has been received with such extraordinary favour by French professional men. It is proposed to obtain subscriptions for a series of experiments, to be conducted on a large scale over a considerable area and for a period sufficiently long to make the results trustworthy. The influences of climate will be tested by the establishment of different stations for these tentative researches and operations. One of these stations is to be situated on the northern coast near Boulogne, another in the warmer temperature of the Riviera. Records will be kept of the various experiments, and a journal devoted to chronicling them. The support of several eminent medical men has

been already promised, and subscriptions in aid of the project have commenced to flow in. Whilst devoting itself chiefly to experiments on live animals by inoculation, the Society will also study to effect the alleviation of phthisis by the destruction of microbes.

THE BRAIN ACCORDING TO SEX AND AGE.

M. PH. REY, according to the *Revue Scientifique* (Jan. 30th, 1886), has communicated to the Société Medico-Psychologique the results of his analysis of the materials left by Broca. The following were the results of 347 observations collected by the learned anthropologist on the weight of the three cerebral regions, frontal lobes, occipital lobes, and parietal regions. Firstly, the relation of those different parts to the brain is:—

In Men.	
Frontal lobes	1 :: 2·33
Occipital lobes	1 :: 10·66
Parieto-temporal regions ...	1 :: 2·12
In Women.	
Frontal lobes	1 :: 2·32
Occipital lobes	1 :: 9·88
Parieto-temporal regions ...	1 :: 2·13

Secondly. In men the left frontal lobe is heavier than the right; but in the occipital lobes and in the temporal regions the excess is on the right side. Thirdly. In old people loss of weight is more perceptible in the parieto-temporal regions than in the frontal and occipital lobes; that is particularly the case in women. Hence it is that if in adult life men have proportionately larger frontal lobes, that ratio is attained in women in old age. Fourthly. In men the frontal lobes only attain their greatest weight at thirty-five years; but the parieto-temporal regions acquire it at twenty-five. The anterior lobes of women present little difference between twenty-five and thirty-five years.

CHOLERA IN BRISBANE.

WE have on several occasions drawn attention to the outbreak of cholera on board the Queensland line steamer, *Dorunda*, and we are now in receipt of communications from Brisbane which confirm the suspicion that the disease was true cholera. The disease manifested itself some days after the vessel touched at Batavia, and when it reached Cooktown certain cases of so-called dysentery were stated to be prevalent. These were doubtless the beginnings of the outbreak which was first reported from Townsville. When the vessel reached Townsville she was inspected by Dr. Ridgley, who reported certain cases and deaths, which, as the result of personal investigation, he regarded as "suspected cholera." Later on it appeared that quite a panic occurred amongst a large body of emigrants on board, and that the captain and the ship's doctor were all but disabled from the overwork occasioned in attending to the sick. Such a panic might have been expected when, instead of dealing with the outbreak at Townsville, it was decided by the Premier that the vessel should go on to Brisbane, the healthy and sick being thus confined together for a still longer period. The whole circumstances are typical of the blundering of the quarantine system. Those who maintain the efficacy of the system should at least be prepared to carry it out in a proper manner; but we read that one reason why the vessel was not allowed to discharge its human freight at Townsville was because it was raining hard, and the people would have required tents. But the action with regard to Dr. Ridgley is the most curious of all, reminding us as it does so forcibly of the useless and vexatious regulations to which the Turk adheres so fondly, and from which he derives a substantial income in the Red Sea. Dr. Ridgley had gone on board to aid the overworked ship's doctor with advice in forming a diagnosis, and it seems that he had gone to the vessel in an unauthorised ship. The result was that when he returned the people clamoured to have him put in quarantine, and the Mayor, in ordering him to confine himself strictly to his residence, added that it must be "together with all the members of your family," until the Colonial Secretary had been communicated with. It is curious to read such an order emanating from an office where it should at least be known that healthy men do not distribute cholera, and where it should be recognised that if danger does attach to an individual his family should be as much protected from it as the remainder of the community. Fortunately some better counsels are also prevailing in the colony, for people are being urged to carry out Mr. Simon's code of sanitary regulations in face of cholera emergencies, and writers to the public papers are pointing out the importance of cleanliness in all its forms. This will be of far more avail than the action which was followed of fumigating letter-bags and locking up doctors with their families because they perform the first duty which is required of them—namely, that of giving medical assistance to the sick. We knew that certain quarantine restrictions existed in the Australian colonies, but hitherto we were not aware that they were of so antiquated and vexatious a character.

THE TEREBENES.

So much attention has of late been directed to the subject of pure terebene as a medicinal agent, that it may be as well to remember that there is a group of substances known chemically as the terebenes. It is, in fact, the generic name for the volatile oils or hydrocarbons, isomeric or polymeric, with oil of turpentine. Nearly all the terebenes are liquid at the ordinary temperatures, and most of them are lighter than water. Natural terebenes treated with acids, especially strong sulphuric acid, generally undergo an alteration of molecular arrangement without change of chemical constitution, the odour being for the most part greatly altered. A terebene often yields several isomeric modifications by treatment with various acids or by repeated distillation with the same acid. The substance called pure terebene is made by the action of concentrated sulphuric acid on oil of turpentine. The process is an old one, and as far back as 1873 M. Riban read a series of papers on the subject before the Pharmaceutical Society of Paris. To prevent any misconception, it may be as well to state that the pure terebene used in the treatment of bronchitis is not a patent medicine; and that, as recently pointed out in the *Pharmaceutical Journal*, it may be made or sold by anybody without the slightest fear of infringing any patent rights.

DUBLIN HOSPITAL SUNDAY FUND.

FROM the report of the Council it appears that the total amount of contributions to the fund for 1885 was £4468 5*s.* 8*d.*, being an increase of £65 11*s.* 1*d.* as compared with 1884, while the working expenses for the year were represented to be £260 12*s.*, being 5·84 per cent. on the total collected. The Committee of Distribution for 1885, having ascertained that a sum of about £4000 was available, determined to distribute £3900 among the participating institutions in consideration of subscriptions received and work done, with an added bonus of 7½ per cent. to those institutions which had provided trained supervision for their nurses. The addition of this bonus absorbed a further sum of £279 2*s.*, making the total sum distributed for 1885 £4179 2*s.* The highest sum was awarded to the City of Dublin Hospital (£780 10*s.* 11*d.*), and the lowest to the Whitworth Hospital (£44 14*s.* 2*d.*). The relative expenditure in management and other expenses in the participating

hospitals was carefully considered by the committee, who arrived at the conclusion that in only one instance was the expenditure so disproportionate to the work done by the hospital as to call for inquiry. In this case, that of the Coombe Lying-in Hospital, the committee deemed that the expenditure on management was excessive, and the explanation they received they did not consider satisfactory, especially as among the items of management they found a sum of £100 as salary to the medical officer of the out-patient department, while no similar charge was discernible in the accounts of any other of the participating hospitals. In two cases—the Meath Hospital and St. Mark's Ophthalmic Hospital—the expenditure on provisions appeared to be too low—viz., at the rate of 8·742 and 7·197 pence per patient per day respectively; and in consequence of the committee's inquiries the Meath Hospital authorities are considering a revision of their dietary, and the authorities of St. Mark's had promised to bring the matter under the notice of the governors. As regards the Meath Hospital, some of the medical staff have for years past paid out of their own pockets for any extras ordered by them for patients under their charge, which of course effected a considerable saving in a year under the head of provisions.

SYPHILIS AT NISHNI NOVGOROD FAIR.

AT a meeting of the Syphilis Section of the Moscow and St. Petersburg Medical Society, a female practitioner who had been commissioned by the Government to inspect the common women frequenting the great annual fair at Nishni Novgorod last year communicated the results of her experience. There were two inspection stations, which were open from June 16th to Sept. 3rd; 2812 examinations were made of 355 women, of whom 49·3 per cent. were frequenting the fair for the first time and 27·7 per cent. for the second time. Some were professional prostitutes, and some servants and peasant women who only practised prostitution during the time of the fair, at other times living quiet lives in their own villages. It was found to be impossible to get the registered women to come up regularly for examination, even though photographs were taken of them. Of those examined, 6·2 per cent. had urethritis *(sic)*, 1 per cent. soft chancres, 0·2 per cent. hard chancres, 5·1 per cent. syphilitic condylomata, and 0·2 per cent. gummata, so that 5½ per cent. were found to be suffering from constitutional syphilis. The conclusions drawn were tolerably self-evident—viz., that the main cause of the spread of syphilis is public and private prostitution, such as that carried on at the fair; also that the examination regulations must be improved.

A PLEA FOR WEIGHING INFANTS.

DR. D. J. VIURA Y CARRERAS, medical officer of the children's department of a Barcelona hospital, has published some remarks on the importance of periodically weighing infants, by which observations it can be determined whether the mother's or nurse's milk is satisfactory in quantity and quality, and the desirability of a change is easily and early recognised. In the main Dr. Viura agrees with the statements of Bouchut—viz., that an infant loses from 100 to 200 grammes in the first four to six days, regaining its original weight in seven days, from which time to five months it gains 25 grammes daily, being then double its original weight, and this is again doubled at sixteen months. He made a series of observations on his own child, and concurrently with them tested the mother's milk by Donné's lactoscope. The child was born on December 16th, and on the seventh day weighed 3300 grammes. On January 15th it had gained 900 grammes; on February 2nd there was a further rise of 800 grammes; but on March 1st the gain was only 500 grammes, the explanation being that the milk, which up to February 10th had had a density of from 23° to 28°, had in consequence of the appearance of the menses decreased in quality, having a density of from 30° to 35°. It afterwards recovered its former quality, and during March and April the child increased respectively 850 grammes and 800 grammes. It is of course necessary to take into account any pathological condition which may be present, and not to attribute to the nurse what may be due to syphilis or tuberculosis in the child.

DIVIDED GOVERNMENT.

LAST Saturday Mr. Roberts, on behalf of the Metropolitan Board of Works, appeared before Mr. Mansfield at Marlborough-street, to answer a summons issued at the instigation of the St. Giles' Board of Works, to compel them to abate a nuisance at Denmark-street, Soho, which had been acquired by the former board on Jan. 31st for the purposes of demolition, and from which the water-supply had been cut off. The miserable condition into which houses fall which are included in any improvement scheme is known to all persons who have had experience of the action of the Metropolitan Board of Works in dealing with property under the Artisans and Labourers' Dwellings Improvement Acts. It cannot be expected that landlords will expend money upon houses within a few weeks of their passing out of their hands, nor would it be profitable for the Metropolitan Board of Works to repair houses which in a very short period will be demolished; but the continued occupation of these places should be prohibited, and if the action of the St. Giles' Board quicken that of the Metropolitan Board in this respect they will have done London a service.

PROFESSOR VIRCHOW ON PATHOLOGY AND DARWINISM.

IN an article contributed to the current number of his *Archiv* Professor Virchow replies to some views enunciated at the Strasburg Conference of German Naturalists and Physicians by Dr. Weismann upon Darwinism and Pathology. The question gains in interest from the facts adduced by Mr. Sutton in the first of his recent lectures before the College of Surgeons, for Professor Virchow's contention is the same as that of Mr. Sutton—viz., that variations from the animal type are largely brought about by deviations in structure strictly speaking pathological. Dr. Weismann, on the other hand, contended that such variations are the result of the law of adaptation, and it is this position which Virchow contests. He points out that Darwin himself, although not a pathologist, recognised the want of a clear line of distinction between monstrosities and mere variations. Weismann, however, went so far as to deny the inheritance of *acquired* properties; but it is difficult to see how otherwise one is to express the changes induced by adaptation to the environment. The facts of acclimatisation are, as Virchow points out, instances of such adaptation, and colonies could not be founded if it did not happen that the powers so acquired were transmissible to posterity. Weismann, on the other hand, regards acclimatisation rather as the product of selection, such individuals surviving who, by the possession of inherent qualities, are enabled to live under the changed conditions, and not that they acquire new powers. Much, however, turns upon what is meant by an acquired quality. Weismann means by it such as is imparted by some external agency and would limit the influence of external causes to unicellular organisms, whereas variation occurs through sexual reproduction. But, as Virchow points out, external agencies ought not to be limited to those which operate outside the organism. In a multicellular organism variation may occur in some cells through the operation of other cells—i.e.,

strictly within the body. Indeed, the influence of the sperm-cell upon the germ-cell is an external influence, and therefore, although we commonly speak of inherited qualities as being internal or predisposing, in strictness the qualities transmitted from the male parent are the result of an external agency when contrasted with those derived from the germ-cell. Applying these considerations to pathological processes, he shows that these are the result of external agents, and that they produce a change in the typical organisation, and thus by mere analogy the conclusion is arrived at that many racial—nay, even specific and generic—differences have been brought about by processes which may be deemed pathological. The various factors which determine the persistence of such deviations, and their transmission by inheritance, are not fully known; use and disuse explain some, adaptation accounts for others; but however explained, the fact that acquired qualities are inheritable remains assured.

THE JUBILEE OF THE UNIVERSITY OF LONDON.

IT has been proposed to mark the fiftieth year of the foundation of the University of London by a commemoration, either in the form of a banquet or otherwise. The proposal originated with the Masonic lodge of the University, and was discussed at the last meeting of the University Dining Club, where a committee was formed to consult with the annual Committee of Convocation and the Senate upon the best means of carrying the proposal into effect. It may be remembered that in 1828 what is now University College was founded as the University of London; but it was not until eight years later that the present University received its charter. Members of the Medical Faculty of the University will, we are sure, co-operate in such a celebration, for in no faculty has the University been more distinguished by the number of eminent men who have graduated there. The fact that one of its legal graduates has just received the highest distinction in the realm open to his profession appropriately signalises the jubilee year, and the suggestion that Baron Herschell should preside over the commemoration is one which will be heartily received.

UNLABELLED POISONS.

IT is still far from uncommon to find that accidents occur from the unguarded use of medicinal poisons by inexperienced persons. The case lately investigated by the coroner for Central Middlesex, in which a woman poisoned herself with her husband's liniment, must have been noticed by many of our readers. The mixture used, though exceedingly powerful, since it contained a large quantity of aconite, had been dispensed and forwarded from a distance without a label. In another quite recent case a boy was poisoned with carbolic acid through the unfortunate forgetfulness of his nurse, who had put some of the disinfectant in an empty medicine bottle for convenience' sake, and administered it to him in mistake by the mouth. These very regrettable incidents teach us that a danger which appears to some almost too common and too evident for precaution, is dormant among us, and may at any time effect most serious injury. In view of the facts above mentioned, it may well be doubted whether the poison label and the dark blue bottle, familiar warnings when seen, are not far less usual in practice than approved in theory. Ordinary caution surely requires at least the employment of these distinctive signs. The professional chemist is under obligation to use them, though to a less extent than he might be. The public are not, nor is the dispensing practitioner. The latter, we are inclined to think, would not lose but rather gain, as would also his patients, if he were required to affix to pure poisons or highly poisonous liniments, some mark which should ensure the proper estimation of their power of doing harm when misapplied. It might be less easy to impose any effectual restriction of this kind upon the careless handling of poisons by non-medical persons in general. We may, however, conclude that one great public advantage would arise from such wide extension of precautionary measures—namely, an arrest, at least partial, of the very free circulation now allowed to nostrums of uncertain composition.

WHOLESALE MEDICAL WORK AND ITS REMUNERATION IN THE THREE TOWNS INSTITUTION.

As an act of justice to the executive of this exacting institution we inserted last week a letter from the chief executive officers, who said *inter alia* that their chief medical officer, Dr. Keily, had "a position equal to a private practice of £400 a year." The letter of the executive to us having been published in the *Western Daily Mercury*, Dr. Keily has written a reply to our contemporary. From this reply we extract one paragraph which ought to enlighten any inexperienced and impecunious young man who thinks of taking the post vacated by Dr. Keily; and it ought to enlighten the public and the working classes on the ungenerousness of asking such enormous labour for such inadequate and declining remuneration as is represented in 30,000 cases at the rate of 1¼*d.* per case! The following is the paragraph alluded to:—

"It is stated that my position is worth £400 per annum. This is glaringly false. For services rendered I receive the following:—Residence, free of rent, rates, taxes, say £60 (which is certainly more than the value of the apartments I occupy); salary as medical officer, £180; midwifery (148 cases for 1885), £77 18*s.*; total, £317 18*s.* I have to provide my own furniture and all the instruments required in a general practice. The fees for extra certificates have not amounted to fifty shillings in the three years. As 10*s.* 6*d.* per case is the fee for midwifery, I will deduct the £77 18*s.* from the gross amount, which leaves me £240 as payment for consultations and visits. My salary and allowances are the same now as they were three years ago. In 1883 for 16,883 cases I received 3¼*d.* and a fraction per case; in 1884 for 27,429 I received 2*d.* and a fraction per case; and in 1885 for (in round numbers) 30,000 I received 1¼*d.* and a fraction per case; so that, with the gradual wearing down of my physical strength, my income practically was on the decline. This is certainly a small chapter on wages for Leone Levi or some annotator of Mill to examine. In reckoning that 30,000 out of the total for 1885 came to me I have had the consent and assistance of my late colleague, Dr. Rees."

MADRAS CIVIL HOSPITALS AND DISPENSARIES.

IN publishing the report by Surgeon-General Furnell on the civil hospitals and dispensaries of Madras, the Chief Secretary to the Government remarks that "the bulk of the report might be largely diminished. In future not only should the appended extracts.....be omitted, but also the long extracts from the reports of district surgeons, the matter contained in which comes before Government in individual municipal and local fund reports. The extracts referred to do not in any case form the text on which any representation is now made." We feel bound to say that we fully concur in this opinion, for the great mass of the appendix, extending to 244 pages, appears to be of no practical value. The report itself covers only fifteen pages, and gives a summary of the work done. There were throughout the presidency 299 hospitals and dispensaries, with a staff of 299 agents, including all grades. During the year there were 39,826 in-patients and 1,714,072 out-patients treated; of the former, 3100, and of the latter 6907, died. Of the out-patients, 5310 died of cholera, and 425 of the

in-patients. The returns show a total of 14,588 cases, with 5735 deaths, or one in 2·54 cases. Next to cholera, dysentery and diarrhœa were the most fatal diseases among the in-patients, and fever among the out-patients. We trust that in future reports a judicious summary of events may be given, and the unnecessary printing of the numerous minor returns from dispensaries and uninteresting extracts from the reports of the surgeons, apothecaries, and hospital assistants, be omitted.

THE ETIOLOGY OF RACHITIS.

DR. H. C. HAVEN, of Boston, has noticed that among the children attending the West-end Dispensary for Children in that city, rickets is much more common among the coloured than the white population. His inquiries show that this increased frequency of rickets is not due to difference in the mode of feeding, to overcrowding, to worse hygienic conditions, or to ill-health on the part of the parents. Dr. Haven is inclined to attribute the fact to the natural habitation of the coloured races being much further south than North America, and that they have "an inherited necessity for heat and sun," which the Boston climate does not satisfy. In confirmation of this view he states that of "the white rachitics of a foreign ancestry, the majority are born of parents coming from the south of Europe, where the disease is relatively rare, rather than of parents from England and North Germany, where the disease is rife."

FEROCIOUS DOGS AND THE LAW.

MANY legal decisions give the public a very unsatisfactory estimate of the law. A poor woman at the Marylebone Police-court the other day consulted Mr. Cooke in reference to injuries she and her child sustained by a dog which accompanied a young woman, a servant in a gentleman's family, who came to ask her about some work she required to be done. While speaking to her the dog seized her little boy's face and dragged the flesh away. The dog then bit her, and again seized the boy by the leg as she carried him off. To any mind but the legal one here was proof enough of the most unmitigated ferocity; but Mr. Cooke, said the law, which he allowed was in a disgraceful state, required proof that the dog had injured someone before, and was known to the owner to be ferocious. It is the very essence of these cases that in the estimation of the owners these animals are always of the most amiable temper, and their little peccadilloes are due to a want of tact or address on the part of the persons they bite. It is most aggravating, when you have just escaped—or perhaps have not escaped—a bite or possibly hydrophobia, to have the amiability of the dog insisted on. But this is what happens in nine cases out of ten; and it has Mr. Cooke's support. In all conscience there was proof enough of ferocity in this case; but the gentleman and his dog go free, and the poor woman and her child get torn and bitten without redress.

PTOMAINE IN STALE FISH.

LAST year several cases of poisoning by stale sturgeon occurred at Kharkov; five terminated fatally. Anrep, studying the cause of these accidents, showed that a ptomaine was the efficient cause, and could be extracted from the fish, as well as from the contents of the stomach and intestines, the liver, blood, brain, and urine of the victims (*Revue des Sciences Médicales*, No. 53, p. 66). The alkaloid differs from the ptomaines of Brieger. It is an amorphous, highly alkaline body, forming soluble salts, and extremely toxic. Caustic agents and boiling destroy the toxic power of the alkaloid, which has two chief characters—viz., its fixity whether in the solid state or in etherial solution, and the slowness of its reducing action on the blood. The hypodermic injection of a quarter of a milligramme in a dog causes vomiting, mydriasis, general prostration, and slowness of the movements of the heart. In the rabbit the action is much more rapid, and the above-mentioned dose causes death in two hours. The march of the symptoms in the poisoned individual is in harmony with the results of physiological research, and indicates, according to Anrep, that the poison first paralyses the spinal cord, then the medulla oblongata, and acts probably also upon plain muscular tissue.

THE VALUE OF QUARANTINE.

DR. J. D. THOLOZAN, who for nearly thirty years has resided in Persia, and who has devoted much of his time to the study of epidemiology, has recently contributed a paper of considerable value to the Académie des Sciences of the Institut de France on the question of quarantine restrictions in their influence on plague and cholera. His whole paper goes to show that, if not absolutely useless, they are practically worthless, and that deductions as to their value which are made elsewhere are not warranted. To cite an instance quoted by him: He points out that the ports in the Persian Gulf are in uninterrupted communication with British India, and especially with Bombay, which is generally regarded as one of the great cholera centres. He gives a description of these ports, showing how, by reason of their soil, moisture, the poverty of the people, and otherwise, they correspond precisely to those places where cholera is said to be locally engendered and maintained; and then he explains that not only has no quarantine ever been put in force there, but Persia has not even the means of carrying out any such precautionary measures. Then it is added that since 1821 cholera has never entered by any of the ports in question. Now, it is not very long since a quarantine system was advocated in the Persian Gulf, with a view of protecting the adjoining countries and Eastern Europe from invasion by cholera in this direction, and Dr. Tholozan very aptly says that if these measures had been put in force, the experience of the Persian Gulf would be uniformly quoted as affording strong evidence of the value of quarantine restrictions. He asks that those who bring forward proof every now and then as to what quarantine has effected in the Red Sea during those years in which cholera has not spread by that route should remember how, in olden days, physicians attributed cures to remedies which we now know to have been so useless and injurious that they have been altogether abandoned.

VACANT PROFESSORIAL CHAIRS ABROAD.

THERE are now no less than four professorships vacant in the Medical Faculties of the Universities of Kieff, Kazan, and Kharkoff: Dr. Mering, Professor of Special Therapeutics in Kieff, having resigned on account of ill health; Dr. Subbotin, Professor of the Therapeutic Clinic in Kazan, having resigned, after twenty-five years' service; and Dr. Vinogradoff, Professor of Clinical Therapeutics in the same University, having recently died; while, lastly, the chair of Special Pathology and Therapeutics in Kharkoff has just been resigned by Professor Kremyanski.

THE PECULIAR PEOPLE AND THEIR CHILDREN.

THE Peculiar People are perhaps more to be pitied than blamed when their peculiar abhorrence of human help in sickness recoils with injury upon themselves. When, again, they exercise in the spirit of their creed the responsibility of parents for their children, they clearly lay themselves open to indictment. The other day, at Grays, in Essex, a child whose parents belonged to this sect died from the effects of pneumonic inflammation, unattended by any

medical practitioner. Such a condition is obviously well within the effective range of modern medicine, and there was doubtless much reason in the medical opinion delivered at the subsequent inquest that the child's life might have been prolonged or saved by timely measures of treatment. We therefore fully concur in the jury's recommendation to the local Board of Guardians thatthey should take summary means to convince the father that his wilful neglect was a legal offence.

ROUGH PLAY AT FOOTBALL.

IT is satisfactory to note that, after all, efforts are actually sometimes made to keep within bounds the "free fight" element which unhappily characterises the game, or rather we should say both games, of football as at present played. The Birmingham and District Football Association have taken, it is stated, a determined step for the suppression of rough play at matches. At a meeting held on the 10th inst. they suspended two players for brutal behaviour at a recent match, and expelled another. A strong feeling was expressed that such conduct should be put down, as several players have been injured. Although these steps were not taken until after the players had been fined by the magistrates for assault, we say, All honour to Birmingham. No one being likely to accuse the inhabitants of the great midland town of being "sickly sentimentalists," we trust that the more timid authorities in London and the North will rouse themselves and follow this needed example. It seems no sort of use appealing to the great central authorities, the Rugby Union and the Football Association. In the latter game there can be little doubt that the contest for the Cup, for which we believe about one hundred and forty clubs this year entered, has much rough play to answer for. The introduction, too, of professionalism is much to be deprecated. In most games and sports the amateur and professional elements are kept apart. For instance, if an amateur, as was lately exemplified, runs a race against a professional he loses his amateur status. Surely football is the very last game in which paid players should be allowed to compete. We do not believe that the great roughness of the play and the enormous popularity of the game are cause and effect. There is plenty of interest in football apart from the free fighting. The game is in many ways too good a one to "end," but it must be "mended." Will it need one or two verdicts of "manslaughter" to effect this?

GERMAN MEDICAL CONGRESS.

THE fifth German Congress for Internal Medicine will take place, from April 14th to 17th, at Wiesbaden, under the presidency of Professor Leyden. Papers on the Pathology and Treatment of Diabetes Mellitus, the Operative Treatment of Pleural Effusion, and the Treatment of Syphilis will be read; and others have been promised on the following subjects: Antipyresis, Ptomaines, Heredity in some Diseases, and Fluctuations of Blood-pressure in the Cardiac Ventricle during Narcosis from Morphia.

TYPHUS IN ENGLAND.

WE referred last week to a prevalence of typhus at Leeds, and some of the annual and other reports now coming to hand go to show that the infection of this disease has been scattered about in several of the large centres of population during the past year. Thus, Dr. Tatham points out that at Salford fifteen cases were observed in the first quarter of the year, thirteen in the second, and one in each of the third and fourth quarters; the disease having again and again been imported from without into some of the most unhealthy portions of the district; but fortunately it was held in check by means of immediate isolation and thorough disinfection. So also at Carlisle the disease made its appearance, but, in view of the past history of the city as regards typhus, prompt measures were at once taken to check it. Both Salford and Carlisle have sanitary hospitals and disinfection appliances; hence doubtless the satisfactory results they are able to record in stamping out typhus.

INHALATIONS OF BLOOD.

FOR anæmic patients in whom the preparations of iron are ill tolerated, M. Fubini avails himself, with marked benefit to the patients, of pulverisations made of a mixture composed of 80 parts of a solution of chloride of sodium (¾ per cent.), and 20 parts of defibrinated ox blood. An ordinary spray suffices for carrying out the procedure, which may be repeated without danger five or six times a day, each inhalation lasting about fifteen minutes. Each sitting ought to use up about twenty cubic centimetres of defibrinated blood. The patients experience, after having taken several deep inspirations, a slight giddiness, which disappears on assuming the horizontal position or after drinking a glass of wine. Absorption takes place rapidly from the respiratory passages. M. Fubini remarks on the perfect tolerance by patients of the inhalations, and on the certainty with which hæmoglobin is absorbed by the respiratory passages.

A LUNATIC IMPRISONED AGAIN.

WHY do the City Fathers persist in imprisoning Herbert Percy Freund, seeing that he is certainly "a person of unsound mind"? Is it that they deem it less costly to keep him one-third of his time in gaol than to maintain him altogether in an asylum? The question of humanity ought to have some little weight as against the question of economy. Besides which, it may one day happen that this lunatic will no longer be contented with declaiming against St. Paul's Cathedral as "that house of idols over there." He may turn iconoclast on his own account; or, instead of predicting the downfall of the City, he may do something towards the fulfilment of his prophecies. The policy of the City magistrates is neither sound nor safe, and it is certainly anything but benevolent.

A PORTUGUESE METHOD OF TREATING RINGWORM.

RINGWORM of the most obstinate character may, according to Dr. Saerlis, writing in the *Medicina Contemporanea* of Lisbon, be cured in ten days by cutting the hair from the affected spot, pouring turpentine on it, letting it run over the whole head, and rubbing well with the finger. After this has caused a smarting sensation for from three to five minutes, it is washed off with carbolated soap. Hot water is then used for washing the whole head, and the affected spots touched with dilute tincture of iodine or with a 2 per cent. solution of iodine and turpentine. This process is to be repeated once or twice a day.

EASTER VACATION COURSES IN GERMANY.

DURING the Easter vacation special series of short courses of lectures and practical demonstrations are arranged to be delivered at Berlin and Würzburg. Those in Berlin commence on the 22nd of March and continue till about the end of April; those in Würzburg commence on March 15th and last five weeks. Information about the Berlin courses may be obtained by writing to Herr Anders, 57, Dorotheenstrasse, Berlin. Information concerning the courses in Würzburg could probably be obtained from any of the lecturers—e.g., from Dr. Rosenberger (who is to give the course on bandaging, &c.), Hofstrasse, Würzburg, Bavaria.

MESSRS. CROOKES, ODLING, and TIDY, reporting on the composition and quality of daily samples of the water supplied to London during last mont , state that they analysed 117 samples collected from the mains of the seven water companies taking their supply from the Thames and the Lea, and that the whole were found to be perfectly clear, bright, and well filtered. Despite the flooded state of the rivers, there was not any appreciable increase in the proportion of organic matter present in the water-supply of the month; the mean amount of organic carbon found in the Thames-derived supply being ·183 part in 100,000 parts of water, as against a mean amount of ·170 part in the preceding month. For some time past they have been directing their attention to the examination of the water of the metropolis by so-called "biological methods," from the application of some of which, at any rate, results of importance may ultimately be arrived at; but several months at least, they state, may be expected to elapse before they are in a position to include any results furnished by this manner of examination in their ordinary reports.

ON Thursday, the 11th inst., Mr. Paul Swain amputated at the shoulder-joint for a very large and rapidly-growing cystic sarcoma, in a lad of nineteen. It was thought to involve the scapula, and the preliminary incisions were made with a view to remove that bone with the humerus. On opening the shoulder-joint, however, the disease was found to be confined to the humerus, and amputation at the shoulder-joint was completed. Owing to the size of the tumour the difficulties and dangers of the operation were considerably enhanced; but with the valuable assistance of Mr. Whipple and Mr. W. Square very little blood was lost. The patient has rallied well from the shock of the operation, and bids fair to make a good recovery.

FOR some time past there has existed in America considerable dissatisfaction with the manner in which the Johns Hopkins bequest is handled. Some months ago an effort was made by the minority of the trustees to have the University opened, but they were outvoted. The same trustees, knowing Mr. Hopkins' wishes in the matter, desired the University to be located at Clifton, the country residence that Mr. Hopkins donated for this particular purpose, but this proposal was also rejected. Now, we understand, a Bill has been introduced into the State Legislature asking that a committee be appointed to ascertain whether the wishes of Mr. Hopkins have been carried out or not.

THE question of the fitness of the present buildings of the Melbourne Hospital for the reception of patients is again, after an interval of four years, under discussion. We understand that the honorary medical staff of the institution have laid before the Committee of Management their opinion of the present capabilities of the building, and by pointing out its deficiencies have relieved themselves from the responsibility of tacitly acquiescing in the continued use of an insanitary structure.

MESSRS. CASSELL AND CO. will publish during the current month, in three volumes, a Manual of Surgery, which has been edited by Mr. Treves, and is intended to form a complete, concise, and authoritative treatise on the science and art of modern surgery.

A MEETING of the President and Council of the Royal College of Surgeons in Ireland will be held this week to elect a curator to the museums of the College, in the room of Mr. Abraham. The salary attached to the post is £250 per annum.

WE regret to learn that by a fire which occurred a few days ago a large number of the anatomical preparations belonging to Mr. Thomas Cooke, and which had been accumulating for the last fifteen years, were destroyed, and also a portion of Mr. Cooke's school premises. All the new and more spacious part of the building is, however, uninjured, and we are glad to learn that the work of the various classes has not been interrupted.

THE special committee of the Liverpool dispensaries intend, at the next annual meeting of the subscribers to these institutions to be held on the 25th inst., to recommend the abolition of the office of honorary medical officers, and that the whole of the medical work be in future performed by one head surgeon and two assistant surgeons at each dispensary.

MR. ROBERT DE'ATH, a surgeon residing at Buckingham, died suddenly on the 11th inst. He had just returned from visiting a patient, and fell in the hall of his own house, death, it is supposed, resulting from apoplexy. The deceased held the offices of coroner for the district and medical officer of health for the borough and union.

ON the 16th inst. the Bedminster Board of Guardians passed a resolution expressive of the sympathy they felt for the loss which the family of the late Mr. G. Pizey had sustained by his recent death. Mr. Pizey had acted as medical officer for the Clevedon district of the union for twenty years.

THE Municipal Council of Marseilles has voted a sum of 60,000 francs for the relief of those families who have suffered from the small-pox epidemic now prevailing in that city.

WE are glad to be able to say that we seem to be approaching within a measurable distance of the end of the Bower and Keates case. We trust shortly to make a more definite statement on the subject.

Pharmacology and Therapeutics.

ACETOPHENONE.

MM. MAIRET and COMBEMALE have continued their investigations on acetophenone, healthy and insane individuals being the subject of experiments. On healthy men doses varying from ·10 to ·30 gramme, administered by injection into the stomach, caused no disturbance of any function; in larger doses, ·45 to ·60 gramme, the circulation and micturition were affected. Micturition became more frequent during the first moments after the administration, and the pulse, at first very full without changing its frequency, became, five or six hours after the administration, more compressible and a little less frequent. Experiments were made on various insane individuals, most of whom presented excitement of some kind. The dose varied from ·10 to ·45 gramme every twenty-four hours. Some of the patients took this drug for eleven consecutive days; others only for five or six days. The patients suffered from epigastric sensations of heat, and in other cases a diminution in the amount of hæmoglobin was observed. Although true hypnotism was not noted, still many of the patients were less excited under the influence of the medicine. The authors regard it, however, as of no value for procuring sleep.

COLCHICINE.

A valuable contribution to the study of toxicology has been made by M. Houdé, and may be consulted in the *Répertoire de Pharmacie*, No. 1, 1886. The chemical characteristics of crystallised colchicine and its clear differentiation by the aid of certain reactions have enabled M. Houdé, by

means of experimental methods, to discover the poison everywhere in the tissues and liquids of the economy. He has thus been able to draw up a scale showing the directions in which the poison is eliminated. In this scale the stomach and intestines amongst the solid tissues hold the first place, and amongst the fluids the diarrhœal stools, the urine, and the saliva (dog). The poison has not been detected by chemical research in the tissue of the heart, but the experimental symptoms—much more delicate tests—have clearly shown its presence, though in relatively minute quantity. Chemical and physiological investigations of the circulating blood have proved the absence of the poison from this fluid. Finally, the substance of the muscles, notably of those that surround the articulations and the tissues of the joints themselves, including the osseous substance, contain, as proved both chemically and physiologically, a notable proportion of the toxic agent. This last fact possesses an interest altogether apart from questions of a toxicological or forensic nature, having a far more important bearing on the mode of action of colchicine in therapeutics.

CONTRADICTORY OPINIONS ON HOPEINE.

Two very contradictory sets of views have been recently expressed by eminent French observers on the nature and value of the drug hopeine. Dr. Ch. Eloy, of the Hôpital Bichat Laboratory, reports, after thoroughly investigating the substance by giving it to animals himself, and after a number of clinical observations made by M. Henri Huchard, that hopeine "is a hypnotic drug, only slightly poisonous, fairly trustworthy, and indicated in cases where opium cannot be prescribed; useful, also, where the insomnia is not caused by pain." M. Dujardin-Beaumetz, on the other hand, stated at the Académie de Médecine that "the white powder sold at a much higher price than morphia is nothing but morphia scented with hops. It gives precisely the same reactions as the latter alkaloid, so that either hops must contain morphia, or, as I believe, the sale of hopeine is an impudent fraud." Another member remarked that he had just been translating an article on hopeine in which it was declared that it could only be obtained from hops grown in Central America. M. Gautier capped this with a story of what had occurred to himself some time ago, when he obtained at a high price some "cobra poison in glycerine," which, to his dismay, he found to be glycerine pure and simple!

URETHAN.

It will be remembered that urethan or urethane has been recommended as a hypnotic. Schmiedeberg has a most interesting article in the *Archiv für Experimentelle Pathologie und Pharmacologie*, in which he deals with the pharmacological action and therapeutics of some of the ethers of carbamic acid; urethan is the ethyl salt of this acid. Solutions containing 10 to 25 per cent. of this ethyl carbamate produce insensibility, precisely as occurs in the anæsthesia of chloroform; but the respiratory movements appear to be increased in frequency and force, a possible effect of the influence of the amidogen group; the heart appears to be unaffected by urethan. The new hypnotic cannot be used for surgical operations, but may replace the nauseous paraldehyde and chloral, where it is wished to avoid the action of chloral on the heart and respiration.

BENZOATE OF COCAINE.

Señor Alfredo Bignon, in a paper read before the Lima Academy of Medicine, and published in *La Cronica Médica*, strongly recommends the employment of the benzoate of cocaine in preference to the hydrochlorate (the salt most commonly used), and to the salicylate and borate, with which he has also made experiments. He finds that the benzoate is extremely soluble, easily crystallisable, and retains the characteristic odour of coca itself. The antiseptic qualities of benzoic acid also are an additional advantage. Amongst other experiments, the anæsthetic effects of a 20 per cent. solution of the benzoate were compared with those of a similar solution of the hydrochlorate in a case of epithelioma of the tongue, with the result that the effect of the former salt persisted for a much longer time than that of the latter.

TYRONE INFIRMARY.—Dr. Andrew Buchanan has been appointed resident surgeon to this institution. Dr. Buchanan was educated at the Queen's College, Belfast, and obtained a scholarship or exhibition each year during his course in arts and medicine.

STATISTICS OF SUICIDE IN ENGLAND.

AT the Statistical Society, on Tuesday evening last, Dr. William Ogle, of the Registrar-General's office, read a paper on Suicides in England and Wales, in relation to Age, Sex, Season, and Occupation. As regards the basis of facts dealt with and the mode of treatment, Dr. Ogle's statistics exceed in trustworthiness and in interest any previously available figures dealing with this subject. The paper and its accompanying tables deal with the suicides of 42,630 persons, whose deaths were so returned in England and Wales in the twenty-six years 1858-83. It is pointed out that this number of suicides is considerably below the true number, as no reasonable doubt exists that numbers of deaths ascribed to accident, or returned by coroners under the open verdict of "Found dead," are cases of suicide. With reference to this disturbing element in suicide statistics, Dr. Ogle remarks that there appears "no reason to suppose that the under-statement thus caused will be greater in one sex than in the other, or in some age-periods or in some occupations more than in the rest." In relation to age, it appears that during the twenty-six years the deaths of one or two children aged between five and ten years were referred to suicide, but that very few suicides occur under fifteen years of age; after which age the death-rate from this cause increases at each successive age-period, in each sex, until the maximum is reached at the age-period fifty-five to sixty-five, after which it declines again. The age-incidence of suicide corresponds generally with the lunacy-rate, measured by the age of admission to asylums. The maximum lunacy-rate is, however, reached at an earlier age than is the suicide-rate, and its after decline is less regular.

The variation between the suicide-rate of males and females is very wide. The annual death-rate of males from this cause in England and Wales in the twenty-six years under notice was 104 per 1,000,000 living, while the rate among females was only 41. These figures, however, do not fully represent the different liability of males and of females to suicide. Corrected for the different age distribution of the two sexes, the female suicide-rate is reduced to 39, and it is shown that in equal numbers living, of equal ages, the true proportion of mortality from suicide is 267 among males to 100 among females. An interesting table in the paper shows that the male and female rates from suicide diverge more widely with the advance of age, with two exceptions. At the age of fifteen to twenty the suicide-rate among females actually exceeds that among males, the rate, however, being low at these ages in both sexes. Again, at the age-period forty-five to fifty-five, the excess in the male compared with the female suicide-rate shows an exceptional diminution, and breaks the continuity of the increasing divergence between the male and female rates at successive age-periods. These two exceptions are, with reasonable probability, referred by Dr. Ogle to physiological causes, due respectively to "the conversion of the girl into the woman," and to the effect upon the "female system by the menopause or 'change of life.'" The suicide-rates at the different successive groups of ages show considerable agreement as to increase and decrease with lunacy-rates, measured by the proportions of persons admitted at each age-period into asylums under the observation of the Lunacy Commissioners.

The most original and the most valuable part of Dr. Ogle's paper deals with the suicide-rates in relation to occupation. Not only is the basis of facts from which the conclusions are deduced larger than that which has before been used for a similar purpose, but Dr. Ogle's method of treatment is one which is beyond cavil. The rates from suicide in the different occupations are calculated on the numbers engaged therein, as enumerated at the census in 1881, while the suicides were those registered in England and Wales during the six years 1878-83. Moreover, due correction is made for the varying age distribution of those engaged in the different occupations. The necessity for such correction is conclusively pointed out, and must be evident to anyone who has given this branch of the subject any serious consideration. It is shown in a valuable table that the annual death-rate from suicide among all males in England and Wales, aged twenty-five to sixty-five years, during the six years 1878-83, was equal to 222 per 1,000,000 living. The suicide-rates prevailing,

however, among those engaged in forty-three occupations or groups of occupations ranged from 74 among miners, 96 among shipwrights and shipbuilders, and 139 amongst clergymen and ministers, to 407 among butchers and fishmongers, 408 among barristers and solicitors, 444 among chemists and druggists, 472 among medical practitioners, 474 among innkeepers and publicans, 650 amongst inn and hotel servants, and 1149 among soldiers. The most marked features presented by these statistics support the general impression that suicide is more prevalent among the educated than among the uneducated classes, and Dr. Ogle points out that during the last quarter of a century the rate from suicide has increased in England concurrently with the increase of education, measured by the ability of persons to sign their names in the Marriage Register. Dr. Ogle urges, however, that "it must not be necessarily concluded that this increased tendency to suicide is the direct consequence of education, and of its effect upon the nervous system." In dealing with suicide in relation to season, the popular error in believing suicides to be most frequent during the fogs and depressing weather of November is once more exposed, and it is shown that the suicide-rate is actually at its minimum in November and December, while it increases with the length of daylight, and reaches its maximum in June. The last section of the paper deals briefly with the methods of suicide, which, as Dr. Ogle admits, "is rather a subject of curiosity than of any higher interest." It is shown, however, that the method of suicide is mainly determined by the comparative freedom of access to the several means or instruments used for the purpose. Soldiers, for instance, preferentially select the gun; while by far the largest proportion of medical men and chemists select poison as the means for effecting suicide; among photographers, moreover, more than 85 per cent. of the recorded suicides were due to cyanide of potassium.

Dr. Ogle admits, in conclusion, that he was much tempted in places to compare the English suicide figures with those of foreign countries, but a careful examination of Morselli's laborious treatise on the subject convinced him that the materials he used for the purpose were too heterogeneous in form and numerically insufficient to afford thoroughly trustworthy conclusions. He trusts, therefore, that foreign statisticians will take up the subject, and treat it with as much care and labour as he has devoted to the English statistics of suicide. International suicide statistics will then afford the means for useful comparison, and throw more light upon an interesting branch of the subject—the influence of race and national temperament upon the tendency to suicide.

MEDICAL HISTORY OF THE SUAKIM EXPEDITIONARY FORCE.

SURGEON J. R. FORREST, of the Army Medical Staff, favours us with the following communication on the above subject:—

"Two circumstances were especially noticeable in the medical history of the Suakim Expeditionary Force—viz., the occurrrnce of very high bodily temperatures, and the production and propagation of enteric fever apart from the contamination of water or the food supply. The excessively high bodily temperatures above mentioned were found in cases of sunstroke, and more particularly in cases of "heat apoplexy," or the cardiac variety of the disease, where the patient had been seized when not directly exposed to the sun's rays. I had several cases under my own care, and have seen similar cases under the care of other surgeons, where the temperature in the axilla very rapidly mounted up to 109·6°. The general history of all such cases was as follows:—The patient was admitted a day or two previously with the symptoms of sunstroke (with moderately high temperature, 104° to 106°) or quite as frequently he had come into hospital with some ailment of a totally distinct nature—e.g., whitlow, fractured femur, occurring four weeks before the supervention of the high temperature in question, dyspepsia, &c. The orderly in charge of the ward would bring word that the patient's breathing was becoming rapid, and that general convulsions were developing. On examination, the patient's skin would be found pungently hot; temperature in axilla up to 109° to 109·6°; the patient at first conscious, but rapidly losing sensibility; breathing rapid and shallow; face perhaps cyanosed; and very soon general convulsions were well marked. I had one such patient, who was originally admitted with whitlow, and who subsequently had three distinct attacks of heat-stroke at intervals of three or four days to one week, and this patient could tell from his own sensations when an attack was approaching. Very many of these cases recovered. One remarkable case of recovery was under the care of Surgeon-Major Bate, medical staff, on the hospital ship *Bulimba*. This occurred in the beginning of June, when the temperature in the 'tween-decks was 92° to 95°. The patient was suddenly seized with the symptoms above described, and his temperature in the axilla reached 108·6°. Surgeon-Major Bate assiduously rubbed the patient's body with ice and administered quinine and brandy in enemata, and the following morning the patient's temperature was normal and he left for England. In the hospital on Quarantine Island it was found that many of the cases of heat stroke occurred between 12 noon and 3 P.M., especially when the air was still or a hot dry wind was blowing; others occurred during the night, from 9 to 12 P.M. Enteric fever, and that of a very severe type, was particularly rife in the early part of the present year at Suakim. Quarantine Island, where so many of the troops were encamped, is built up of partly broken-down coral, many native graves are scattered about, and the foulest odours at all times were exhaled from the mud and decomposing exposed coral on the surrounding foreshore. When it is added that the soil is very unabsorbent, that the ground-water exists at a depth of about two and a half feet from the surface, and that there is no tide, it will be seen that all the conditions are present for the production of putrefaction in any organic matter that may find its way on to or beneath the surface. The temperature of the air in the huts reached, in July, 121° F. The treatment adopted was mostly as follows. The patient was stripped and laid on the canvas bottom of the iron-frame bedstead, with a waterproof sheet beneath him. From twelve to fifteen pounds of ice were placed in a pitcher of water, and a stream of the iced water was poured continuously over his whole person. The length of time during which this cold stream should be applied was determined by the state of the patient's pulse and his temperature. Generally the attainment of a temperature of 101° or 102° was considered satisfactory, and he was then placed in a wet pack for half an hour to an hour, after which he was wrapped in blankets and an ice-bag applied to his head. An enema of iced water was first given, which served the double purpose of clearing the lower bowel and aiding considerably in the reduction of temperature; and then an enema was administered, containing forty grains of quinine, with twenty minims of tincture of digitalis if the heart's action were feeble, and twenty grains of hydrate of chloral if the dyspnœa were marked, together with brandy if considered necessary. The enema was made up to from two to three ounces with iced water. The troops were quartered partly in huts, partly in double-roofed tents, which were further protected by a roofing of matting. The excreta were, where it was possible, conveyed in pails by hand and deposited in the sea; in other cases the usual trenches were dug for latrines. No milk other than condensed was used, and all the water was distilled in ships lying in the harbour. Post mortem all the cases presented the usual pathological changes well known at home. From the above I think it is clear that the enteric fever poison was generated from or in the foul soil under the influence of excessive solar heat, and that it was propagated through the medium of the air.

"Suakim, Jan. 27th, 1886."

WILLS OF MEDICAL MEN.

THE will and codicil of George Charles Julius, M.D., of Claremont House, near Tilford, Surrey, who died on Dec. 1st last, have been proved by Arthur Onslow Julius, the nephew, and Mrs. Katherine Robertson Julius, the executors, the value of the personal estate amounting to over £19,000. The testator bequeaths the silver vase presented to him by his late Majesty King William IV. to his grandson, Herbert Amelius Julius, to be held as a heirloom; various sums of money and his household furniture and effects to his daughter-in-law, Mrs. Katherine Robertson Julius; and one or two other legacies. As to the residue of his real and

personal estate, he leaves one moiety upon trust for his said daughter-in-law for life, and then for all her children by his late son Reginald as she shall appoint; and the other moiety upon trust for his daughter, Mrs. Ethel Lambart.

The will of William Benjamin Carpenter, M.D., who died on Nov. 10th last, has been proved by Joseph Estlin Carpenter, the son, the acting executor, the value of the personal estate amounting to over £15,000. The testator gives his interest in a house at Bristol to his son, William Lant; £100 and such of his furniture and effects as she may wish to retain to his wife; and the residue of his real and personal estate upon trust for his wife for life, and then for all his children in equal shares.

The will of Mr. John Christopher Armstrong, late of 14, Park-place, Gravesend, Surgeon, who died on November 4th last, has been proved by Mrs. Annie Armstrong, the widow, and Mr. William Henry Warner, the acting executors, the value of the personal estate amounting to over £11,000. The testator leaves £100 and all his household furniture and effects to his wife; and all his real estate and the residue of his personal estate upon trust for his wife for life or widowhood, and then to divide the same equally between all his children.

The will of John Paton Watt, M.D., late of George Town, British Guiana, who died on August 12th last, was proved in London on the 11th ult. by Henry K. Davson, one of the executors, the value of the personal estate in England amounting to over £3400. The testator gives, devises, and bequeaths the whole of his property, movable and immovable, and wheresoever the same may be situate, to his wife.

The will of John Mason Booth, M.D., late of Sydney, New South Wales, was proved in London on the 4th ult. by Edward Sidgwick. The testator leaves legacies to relatives and others, and the residue of his property to be divided between his two sisters, Jane Mason Booth and Anne Mason Booth.

The following legacies have recently been left to hospitals and other medical institutions:—Mr. James Fletcher, of Woolton-hill, near Liverpool, of Rosehaugh, Ross, and Cromarty, and of Fearn, county Forfar, £500 to the Northern Infirmary, Inverness.—Sir William Rose, K.C.B., late of Leiston Old Abbey, Leiston, Suffolk, and of 39, Bruton-street, £50 each to the Westminster Hospital and the East Suffolk Hospital, payable on the death of his wife.—Mrs. Marian Francis Dobson, of Lyde House, Sion-hill, Bath, £220 to the Convalescent Home, Combe Down; £200 to the National Hospital for the Paralysed and Epileptic, Queen's-square, Bloomsbury; £110 to the United Hospital, Bath; and £100 each to the Mineral Water Hospital, Bath, the Hospital for Incurables, Putney, and the Hospital for Sick Children, Great Ormond-street.—Mrs. Elizabeth Blagden, of Long Clawson, Leicestershire, £100 to the General Hospital, Nottingham.—Right Hon. Louisa Lady Rolle, late of Bicton, Devon, £100 each to the Exeter Lying-in Charity, the West of England Eye Infirmary, Exeter, and the Exeter Dispensary.—The Rev. Thomas Garden Carter, Hon. Canon of Canterbury Cathedral, late of Linton, Kent, £100 to the West Kent General Hospital, Maidstone.—Mrs. Adelaide Mildred Livins, late of 32, Hampton-park, Redland, Bristol, £100 to the Bristol Infirmary, and £50 each to the General Hospital, Bristol, the Sick Children's Hospital, and the Redland Dispensary.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Stroud Urban District.—Mr. Thomas Partridge gives the mortality for this district at the rate of 19·6 per 1000 during 1885, a rate which he very properly regards as too high for a district like Stroud, which has considerable natural advantages. Steps are being taken to improve the water-supply, but it is quite evident that the abolition of wells on private premises should also be one of the early pieces of work for the sanitary authority to undertake. The state of the water from some of the wells also points to the fact that the soil from which it is drawn is subject to considerable soakage of filth, and it is also clear that some remedial measures, by way of improved drainage or otherwise, are necessary to prevent this process of soil-pollution from going on. Steady sanitary work is in progress, and the record of it includes a number of instances in which the water-supply has been improved, although no wells have been closed during the year.

Bisley Urban District.—This district is under the same health officer as Stroud, and in 1885 it had a death-rate of 17·1 per 1000. Measles are stated to have been very prevalent, and it is added, that by closing the schools for a fortnight the disease was so materially checked that teaching could be resumed. Improvement of the water-supply has been carried out, the dairies have been carefully inspected, and samples of food and drugs have been submitted for analysis.

West Ham Urban District.—Dr. Drake reports that during 1885 the very heavy infantile mortality which he has before had occasion to record still continues, and this in spite of the existing sanitary administration of the district. Small-pox caused 563 deaths, but of these 69 were cases imported from other parishes, an importation doubtless representing several hundred cases. Although 114 of these deaths occurred amongst persons who at one time or another had been vaccinated, it appears that it has been impossible to find a death in the case of any persons who had been properly revaccinated within a reasonable period. Dr. Drake, in referring to the proposed reopening of the Plaistow Small-pox Hospital, stated that if this were carried out the buildings would have to be enlarged, and, having regard to past experience, he has advised his sanitary authority to make strong representations in opposition to the proposal. The annual death-rate was 21 per 1000 living, this rate being 1 per 1000 in excess of that for the previous year.

Teignmouth Urban District.—Occasion is taken of the completion of a new system of sewerage for this district to embody in a special report a description of the town and neighbourhood with reference to drainage. Complete separation has been effected between the channels for the conveyance of sewage and those for carrying away storm-water and surface-water from the streets, the latter water reaching the Tame brook by means of the former pipe sewers. The new sewers reach a large retaining tank on the shore of the estuary, from which an iron pipe sewer has been constructed to low-water mark, the contents only entering the estuary while the tide is flowing out. The principal sewers are provided with Field's automatic flush tanks, and ventilation is carried out by street gratings and upright shafts. Mr. Lake does not refer to any system of house drainage, but it is to be hoped that the sanitary authority will not allow their excellent work in the matter of sewerage to suffer any discredit by means of the faulty systems of house drainage, and the lack of through-ventilation of every such drain, which are so often left to take care of themselves on the completion of sewerage schemes.

Hereford Combined Districts.—Dr. H. S. Sandford is one of the medical officers for combined sanitary districts who issues his reports at a time when they are really useful—namely, soon after the expiration of the period to which they relate. The information they contain for 1885 is largely statistical and of local value, but we could wish that, in addition to mere records of death and sickness, there were more information as to the general improvements effected year by year as regards the more important circumstances under which the people in each district live. The deaths and the existing diseases are fully dealt with, and in some districts certain advice as to the future is given apart from the prevalence of sickness—for example, as to an improved water-supply at Ledbury; but the non-resident reader would gladly learn more as to sanitary provisions which influence health in several portions of the area concerned. Tabulated and other material shows that nuisance removal is cared for, and we learn that in one respect at least—namely, in the important matter of water-supply—the city of Hereford has all that health can need.

Torquay Urban District.—Mr. Karkeek offers a most satisfactory report on Torquay, and he observes that the results attained are mainly due to the incessant care recently taken as to the sanitary state of houses and the isolation of the infectious sick. Torquay has spent £80,000 on its sewerage system, £30,000 on water-supply, £3600 on hospital provision, and, together with other matters, a total sum of £133,000 has been spent in ten years in sanitary works of the first importance. This expenditure will, we believe, soon be found to be remunerative, and we have no hesitation

in saying that the proportion of interest and capital which must annually be set aside to cover it will be largely provided by those who will seek a health-resort at a spot where health considerations are prominently held in view. In few districts are the residences, the villas, and other houses subjected to such careful inspection as is carried out under Mr. Karkeek's administration of the health office. Deducting deaths of outsiders, the death-rate for 1885 was 13·9 per 1000, and there was only a single death from either of the continued fevers. The sanatorium received thirty-three patients, eleven of them being persons of independent means or belonging to the professional and commercial classes. In short, the value of efficient isolation is becoming more and more appreciated.

Carlisle Urban District.—The death-rate for this city was 20·3 per 1000 in 1885; and the only infectious disease that was fatally prevalent was measles, which caused 22 deaths. Typhus was seen in June, but it was at once stamped out by means of isolation in hospital and efficient disinfection. Typhoid fever and diarrhœa have only been slightly prevalent, and Mr. Brown, referring in some detail to the causes of these diseases, points out that the local system of midden closets which has twice been so strongly condemned by medical inspectors of the Local Government Board, is being gradually abolished or modified so as to be less injurious to health. The water-supply is abundant and good, the model bye-laws as to lodging-houses are being carried out, the slaughterhouses are being carefully looked after, and infectious diseases are promptly dealt with.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 6083 births and 4024 deaths were registered during the week ending February 13th. The annual death-rate in these towns, which had been equal to 22·1 and 22·2 per 1000 in the preceding two weeks, further rose last week to 23·1. During the first six weeks of the current quarter the death-rate in these towns averaged 22·7 per 1000, and was 2·2 below the mean rate in the corresponding periods of the ten years 1876-85. The lowest rates in these towns last week were 14·7 in Huddersfield, 15·3 in Leicester, 15·7 in Bradford, and 18·3 in Hull. The rates in the other towns ranged upwards to 25·5 in Norwich, 29·0 in Cardiff, 29·1 in Manchester, and 30·9 in Preston. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 360 and 376 in the previous two weeks, further rose last week to 405; they included 188 from whooping-cough, 67 from measles, 46 from diarrhœa, 43 from "fever" (principally enteric), 30 from scarlet fever, 28 from diphtheria, and 3 from small-pox. No death from any of these zymotic diseases was recorded last week in Halifax; whereas they caused the highest death-rates in Plymouth, Portsmouth, and Blackburn. The greatest mortality from whooping-cough occurred in Salford, Brighton, and Portsmouth; from measles in Portsmouth, Nottingham, Plymouth, and Blackburn; from scarlet fever in Birkenhead and Leicester; and from "fever" in Norwich, Plymouth, and Blackburn. The 28 deaths from diphtheria included 18 in London, 2 in Birmingham, and 2 in Huddersfield. Small-pox caused but 1 death among the residents of London and its outer ring, and 3 in Liverpool, but not one in any of the twenty-six other large provincial towns. The number of small-pox patients in the metropolitan asylum hospitals situated in and around London, which had declined in the preceding thirteen weeks from 90 to 18, had further fallen to 11 on Saturday last, only 1 case having been admitted during the week. The Highgate Small-pox Hospital contained 3 patients on Saturday last, no case having been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had been 477, 478, and 479 in the preceding three weeks, further rose last week to 584, but were 21 below the corrected weekly average, a noteworty fact, having regard to the low temperature that has prevailed in recent weeks. The causes of 94, or 2·3 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Leicester, Newcastle-upon-Tyne, Leeds, and in four other smaller towns. The largest proportions of uncertified deaths were registered in Hull, Bradford, Oldham, and Leicester.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had declined in the preceding four weeks from 23·9 to 21·3, rose again to 24·5 in the week ending February 13th, and exceeded by 1·4 the mean rate during the same week in the twenty-eight English towns. The rates in the Scotch towns last week ranged from 11·5 in Perth and 13·3 in Leith, to 27·1 in Aberdeen and 29·7 in Glasgow. The 606 deaths in the eight towns showed an increase of 79 upon the number in the preceding week, and exceeded the number in any previous week of this year; they included 17 which were referred to whooping-cough, 16 to diarrhœa, 9 to "fever" (typhus, enteric, or simple), 6 to scarlet fever, 5 to diphtheria, and not one either to small-pox or measles. Thus, 53 deaths resulted from these principal zymotic diseases, against but 37 and 32 in the previous two weeks. These 53 deaths were equal to an annual rate of 2·1 per 1000, which was 0·2 below the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had been 13 and 9 in the previous two weeks, rose last week to 17, of which 14 occurred in Glasgow and 2 in Paisley. The 16 deaths attributed to diarrhœa showed a considerable increase upon the numbers in recent weeks, and also exceeded the number in the corresponding week of last year. The 9 deaths referred to "fever" also showed an increase upon recent weekly numbers, and included 2 in Glasgow, 2 in Edinburgh, and 2 in Greenock. The 6 fatal cases of scarlet fever and the 5 of diphtheria corresponded with the numbers in the previous week; 4 of the deaths from diphtheria occurred in Glasgow, and the deaths from diphtheria included 2 in Edinburgh. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 156 and 135 in the preceding two weeks, rose again last week to 144, but were 8 below the number in the corresponding week of last year. The causes of 78, or nearly 13 per cent., of the deaths in the eight Scotch towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 29·6, 31·9 and 33·7 per 1000 in the preceding three weeks, further rose to 38·6 in the week ending Feb. 13th. During the first six weeks of the current quarter the death-rate in the city averaged no less than 32·7 per 1000; the mean rate during the same period did not exceed 23·0 in London and 18·5 in Edinburgh. The 261 deaths in Dublin last week showed a further increase of 33 upon recent weekly numbers, and included 26 which were referred to the principal zymotic diseases, corresponding with the number in the preceding week; 14 resulted from "fever" (typhus, enteric, or simple), 10 from whooping-cough, 1 from scarlet fever, 1 from diarrhœa, and not one either from small-pox, measles, or diphtheria. These 26 deaths were equal to an annual rate of 3·8 per 1000, the rate from the same diseases last week did not exceed 2·8 in London and 1·0 in Edinburgh. The fatal cases of whooping-cough, which had ranged from 13 to 19 in the previous four weeks, declined last week to 10. The deaths referred to "fever" rose last week to 14, from 1 and 6 in the previous two weeks, and exceeded the number returned in any week since the end of 1884. Seven inquest cases and 7 deaths from violence were registered; and as many as 97, or more than a third of the deaths, were recorded in public institutions. The deaths both of infants and of elderly persons showed an increase upon recent weekly numbers. The causes of 39, or nearly 15 per cent., of the deaths registered during the week were not certified.

THE SERVICES.

INDIA OFFICE.—The Queen has approved of the following promotions amongst others made by the Governments in India:—Surgeon-Major George Dalziel Riddell, of the Madras Medical Establishment, to be Brigade Surgeon; Surgeon-Major George Yeates Hunter, of the Bombay Medical Establishment, to be Brigade Surgeon.

ADMIRALTY.—The following appointments have been made:—Fleet Surgeon Walter F. C. Bartlett, to the *Castor*; Fleet Surgeon Robert H. More, to the *Impregnable*; and Mr. William Clibborn to be Surgeon and Agent at Bridport.

ARTILLERY VOLUNTEERS.—2nd Lancashire: Surgeon

Martin G. B. Oxley, M.D., is granted the honorary rank of Surgeon-Major.

RIFLE VOLUNTEERS.—1st Tower Hamlets (the Tower Hamlets Rifle Volunteer Brigade): Surgeon and Honorary Surgeon-Major John Hayball Paul, M.D., resigns his commission; also is permitted to retain his rank, and to continue to wear the uniform of the corps on his retirement. Acting Surgeon Octavius Mark White to be Surgeon.

Correspondence.

"Audi alteram partem."

MORTALITY FROM INFECTIOUS DISEASES IN THE MEDICAL PROFESSION.

To the Editor of THE LANCET.

SIR,—Dr. Ogle's important and valuable statistics on Mortality in the Medical Profession, recently read before the Royal Medical and Chirurgical Society, raise the following interesting question: What degree of immunity is acquired by medical men against the virus of infectious diseases by frequent and in some cases constant exposure? That some immunity is conferred is clearly proved by the statistics now before us; for although by virtue of our occupation we are almost daily exposed to the germs of these diseases in the sick room, in addition to being subjected to the same dangers of infection as the general public, yet the deaths per million in the profession from scarlet fever, diphtheria, and typhus are only increased 3·6, 4·2 and 2·07, respectively, above the average mortality from the same diseases in men taken generally. How can we explain this? The general public offer an explanation by averring that either medicine is taken as a prophylactic or that a special providence protects the doctor. Were this so the mortality from these diseases should be almost *nil*. Bretonneau, in his fifth memoir on Diphtheria,[1] remarks "that habit, which subdues the wild animals, also mitigates the various kinds of morbid poisons. By penetrating into our economy the morbid poisons multiply there, which circumstance, however, does not prevent the amount of each dose of the virus successively absorbed from exercising a weakening influence over its operation, so that at the period of an epidemic the physicians who have a large practice, running from one patient to another and absorbing only fractional portions of virus, succeed in attaining an immunity which is often observed and generally ill-understood." Trousseau, however, thought immunity from acclimatisation and habitual exposure to be more apparent than real, and in support of this mentions the fact that in the Crimea the mortality from typhus was greater amongst the medical officers than the soldiers. Dr. Ogle's statistics show vastly different results when the whole of the profession is considered. It would, however, be interesting to know the mortality of medical officers in our fever and small-pox hospitals. It is highly probable that much depends upon the state of health at the time of coming into contact with the organism. If the body be in a depressed condition, as is often the case in our hospitals, and rich in the pabulum necessary for the organism's existence, and should also this particular organism have not been met with for a considerable time, in all probability nothing short of immunity produced by a previous attack is likely to serve as a protective, and this we know will not always avail. Two infectious diseases appearing at the same time in the same subject usually modify each other. One disease seems to offer protection from another, as in the case of cow-pox and small-pox. Then, may not the frequent inhalation and absorption to some extent by the mucous membrane of the mouth and respiratory passages of various organisms, which probably are more or less generically related, serve to protect us from an actual attack of the disease they respectively produce? The pathological change in the blood and tissues necessary to secure this immunity, whether it be due to the exhaustion of some chemical compound necessary for the existence and multiplication of the organism, or, as Klebs believes, the production of some substance which acts inimically to another immigration of the same organism, is difficult to decide. One thing is certain, however, that, short of an attack of the disease, this change may take place insensibly and without producing any great constitutional disturbance. During epidemics we all have observed abortive cases of the disease under observation bearing ill-defined symptoms and producing but little disturbance of the general health, yet apparently giving an immunity hereafter. Bretonneau mentions the fact of pregnant women attending upon small-pox patients having given birth to children suffering with the disease without having suffered any constitutional symptoms themselves, thus proving that a considerable quantity of poison may be received into the system without causing any appreciable untoward bodily effect.

Dr. Ogle's statistics prove what must be satisfactory to members of the profession, that a considerable degree of immunity is conferred upon us by attendance upon infectious diseases; for were this not so, all things being equal, we should have seen recorded a much higher mortality from these maladies. I am, Sir, yours truly,

Stanley, Durham, Feb. 9th, 1886. ALFRED MANTLE, M.D.

[1] New Sydendam Society, p. 191.

"THE CONNEXION BETWEEN THE PAROTID GLANDS AND THE GENERATIVE ORGANS."

To the Editor of THE LANCET.

SIR,—The correspondence originated by Mr. Paget in THE LANCET of January 9th, on the Relation of the Parotid to the Generative Organs, however important and instructive, has not so far either negatively or affirmatively ripened into a settlement of the question. That desirable result can only be attained by the accumulation of reliable evidence and extended observation, and, as I have some information on the subject to communicate, I may be pardoned for taking part in the discussion. In the first place, the teaching of experience has convinced me of the intimate relationship existing between the parotid and the organs of generation, so often manifested in the mutual derangement of functions and of normal health. The weight of evidence adduced by your correspondents has only added to the strength of my convictions; and I am willing to adopt as my own the dictum of Professor Möricke, as quoted by Mr. Tayler—viz., that from "the well-known relation existing between the testicle and the parotid we may infer that the same exists between the ovary and the parotid." My observations shall be directed towards proving the correctness of the inference, and I shall commence by giving the history of one remarkable case.

Mrs. M——, at present aged forty-three years, consulted me in the month of June, 1874, before the birth of her second child, on account of a troublesome enlargement of the left parotid gland, which destroyed the symmetrical appearance of her face, and was otherwise a cause of discomfort. She was then about six months pregnant. The tumour was as large as a small-sized orange, of oval shape, and about three inches in length by two in breadth. She informed me that it had begun to enlarge soon after the commencement of pregnancy, and had continued to grow week by week up till that time. She had not suffered in this way with her first child, which was born in the country. Regarding the tumour as of idiopathic origin, I prescribed iodide and bromide of potassium and the external application of iodine liniment, but without any effect; the tumour slowly increased till the period of her confinement, when it immediately began to collapse, and almost altogether disappeared within the succeeding month, leaving, however, a sensible permanent enlargement. During the period of growth she had not suffered from pain nor increased salivation; there was no tendency to redness or suppuration, and she was quite free from the morning sickness or reflex vomiting of pregnancy. I had wellnigh forgotten the circumstance until the reappearance of the lady some two years later, when she called to request my attendance at her third confinement; she then had an enlargement of the left parotid similar in every respect to that which accompanied her previous pregnancy. Mrs. M—— informed me that soon after she was conscious of her condition the gland began to enlarge as before, and its increase was concurrent with the advance of gestation. Just as before, the tumour rapidly disappeared after confinement, and in the succeeding pregnancies she has learned to

recognise this strange phenomenon as one of the first indications of her gravid condition. This incident has now occurred under my observation for the sixth time in succession, the last child born being now nearly twelve months old. The subject of this remark is of spare habit, tall and thin, and sallow. She has no family history of any importance, but of the children born to her there appears to be in several a dyscrasia of the bony structures, as an ordinary fall is liable to produce a fracture of the bones of the arms. I have had to treat one of her boys three times for fracture of the forearm, another twice, and a third for a fracture and a dislocation of the shoulder.

To what causation, then, are we to attribute this unusual manifestation? The explanation is difficult, except on the grounds of a distinct relation between the generative organs and the gland, and that, like the reflex vomiting, the neuralgic toothache, and the disorders of nutrition that so often accompany the gravid condition, it is also due to sympathetic causes and to the discharge upon the parotid of surplus nervous energy, originating in ovarian excitement. In this particular case the gland appeared to act as a diverticulum, as neither morning sickness nor dental suffering was complained of. We cannot explain why it is that in one case the dental branches of the fifth suffer, or in another why the vagus is implicated in the process of utero-gestation, while we admit the causal relation. Neither can it be urged that these developments are due to accident or mere coincidence—the marked antecedence and sequence in each case forbid such a conclusion; nor yet to sepsis, the other explanation offered by Mr. Tayler in the absence of wound or abrasion of any kind.—I am, Sir, yours truly,

Belfast, Feb. 14th, 1886. ALEX. HARKIN, M.D., F.R.C.S.

SOLID TUMOURS OF THE MESENTERY.

To the Editor of THE LANCET.

SIR,—In the interesting letter of Dr. Hamerton, published in your number of Feb. 6th, pp. 278-9, he alludes to a case where I removed a solid mesenteric tumour of the size of an adult head as the only successful one among eight recorded cases. This becomes additionally interesting as I have at last obtained a report of the microscopic examination of the tumour. Mr. Arthur Jackson of Sheffield writes to me: "I had it examined by two competent microscopists, independently of each other, and it was reported to be a rapidly recurring spindle-celled sarcoma." As the operation was done in June, 1882, and the patient has had no abdominal trouble since, but has enjoyed very fair health, we may hope that the fear of recurrence has passed away. When my "Diagnosis and Surgical Treatment of Abdominal Tumours," referred to by Dr. Hamerton, was published, and particulars of the case and operation were given at pp. 204-5, I had not received any report as to the structure of the tumour.

I am, Sir, yours truly,

Feb. 16th, 1886. T. SPENCER WELLS.

"MR. HORSLEY'S CRITICISM OF PROFESSOR SCHIFF."

To the Editor of THE LANCET.

SIR,—In the remarks I made on Mr. Horsley nothing could have been further from my intention than to overstep the limits of fair criticism. Misled by the imperfect abstract of his lectures, I believed, as did also Professor Schiff, that Professor Horsley's criticism rested on the supposed impossibility of the experiment in question (cutting the posterior cords without injuring the motor tract). From Professor Horsley's letter I see that this belief was erroneous, and that my criticism was beside the point.

Having left Geneva, I fear I shall not have an opportunity of returning to the subject. However, I sent Professor Horsley's letter to Schiff; and in his reply are words to the following effect: "Now I understand what Mr. Horsley means by the motor tract. He believes that the posterior part of the lateral columns near the posterior horns of the grey substance is motor. This is a very general opinion, against which I shall publish a series of experiments in a physiological journal. I shall send you my paper when it is printed."

Touching Professor Horsley's explanation of the position of the foot as being due to paralysis, I would simply remark that in the experiments reported by me no evidence of paralysis was discoverable; while a cause capable of accounting for the phenomenon—loss of tactile sensibility—was proved to be present. I am, Sir, your obedient servant,

Davos Platz, Feb. 13th, 1886. WILLIAM R. HUGGARD.

ASSOCIATION OF MEMBERS OF THE ROYAL COLLEGE OF SURGEONS.

To the Editor of THE LANCET.

SIR,—I tender you my sincere thanks for the interest and able support you are giving towards forwarding the object of the above Association; and I think it the duty of every Member to encourage and assist the promoters in carrying out the purport of the petition. The "sop" which Mr. Hutchinson proposed to the Council is hardly good enough to be swallowed by the majority of the Members, who, after all, are undoubtedly the back-bone, financially, of the College, and ought therefore to insist on their rights being given them, whereby they may exercise a supervision over what is really their own. This "kick-out" into the cold, so soon as our fees have been safely secured in the coffers of the College, is, to say the least of it, ungrateful and mean, and the only wonder is that the thing has been allowed to go on for so long. I would ask every Member to read your able article in the last issue of THE LANCET, and then proclaim aloud their indignation against the individuals who would still rob them, by offering a "mess of pottage" for their "birth-right." I am, Sir, yours faithfully,

Manchester, Feb. 13th, 1886. HENRY CARTMEL, M.R.C.S.

MANCHESTER.

(*From our own Correspondent.*)

CENTRAL MEDICAL SOCIETY.

AT the time the new Central Medical Society was formed, one of the chief reasons advanced for its establishment was the fact that the reading-room and meeting-rooms of the Medical Society at Owens College were situate too far from the centre of the city. Recently the committee of the College Medical Society have endeavoured to remove this ground of complaint by engaging central rooms at the Literary and Philosophical Society, where the journals and papers can be seen and books obtained from the library by telephone; but during the three months this has been in operation only three members have availed themselves of this means of obtaining books, which looks as though the members generally do not consider the distance too far to go themselves to the library. Further, the committee have endeavoured to obtain the opinion of members as to the desirability of altering the time and place of the meetings; about one-third appeared in favour of afternoon meetings, so an experiment is to be tried by holding a few at 4.30 P.M. at the central room.

THE CHAIR OF PHYSIOLOGY.

The post of Professor of Physiology has at last been filled by the appointment of Professor Stirling, who comes from Aberdeen with very high credentials. It is unfortunate that the greater part of the winter session has passed away without there being a responsible teacher at the head of this important branch of medical studies; but it appears that, in response to the advertisement issued on the resignation of Dr. Gamgee, no candidate of sufficient repute was forthcoming, and overtures were then made to Professor Stirling, with a successful result. The Victoria University Extension lectures are apparently meeting with much success. It was stated at the first, delivered by Professor Marshall at Withington, that over 200 subscribers had been obtained for the course of lectures on Natural History.

THE LOCAL CHARITIES.

The annual meetings have been held of various local hospitals—the Clinical, the Children's, St. Mary's, and the Eye Hospital. From them all comes the same cry—expenditure exceeding income, and an appeal for increased support. The committee of St. Mary's Hospital again bring forward

the question of obtaining a new hospital. This, the only maternity charity we have, has increased greatly of late years, and the hospital, antiquated in structure, is but ill adapted for the demands made upon it. The meeting of the Eye Hospital was a red-letter day in the annals of the institution, it being also the opening day of the new and handsome building recently completed in Oxford-road. It has been in use for some little time, but the formal ceremony took place on Monday last, when the Mayor of Manchester (Mr Alderman Goldschmidt), in the presence of a large and influential gathering, declared the new building open. Mr. Goldschmidt is chairman of the Board of Management, and it is not too much to say that it is in great measure due to his indefatigable interest and work on behalf of this charity that it finds itself to-day located in one of the best-equipped buildings for its purpose which exist in the country. Accommodation is provided for 100 in-patients and for a daily attendance of 400 out-patients. Sunday last was our Hospital Sunday, but it is too soon to say what the results are compared with last year. It is hoped that this year's Hospital Sunday Fund will show a considerable increase. The hospitals which share in these collections are said to have relieved no less than 125,000 persons during the past year. One is almost tempted to ask if this be in all respects a thing to be proud of, though in fairness it should be stated that this large number are not all supplied by Manchester, for the surrounding towns send a goodly contingent—perhaps more than they ought, seeing that most of these have local hospitals of their own.

MEDICO-LEGAL CASES.

At the last assizes there were one or two cases of some medical interest. In one a charge was brought by a young woman of a criminal assault against a dentist whilst under the influence of nitrous oxide gas administered by him previous to extracting a tooth. The evidence in support of the charge was very weak and the jury were discharged without finding a verdict. The moral is the old one, never to administer anæsthetics to a female patient without the presence of a third person. At the same assize a woman, the widow of a boiler-maker, was awarded £150 damages for the loss of her husband from hydrophobia from the bite of a dog. A stonemason employed upon the new buildings now in progress at Owens College obtained £200 from the tramway company for the loss of his leg, the result of an injury received through being run over by one of their cars.

The outbreak of typhus fever in Gorton, alluded to on a previous occasion, has been the means of causing the death of two nurses at the Withington Hospital, whither some of the patients suffering from that disease had been removed.

Manchester, Feb. 16th.

LIVERPOOL.

(From our own Correspondent.)

THE LOCAL HOSPITALS AND THEIR FINANCES.

THE annual meetings of all the hospitals have now been held, and at all the same story is told: greatly reduced incomes, but no reduction of expenditure,—rather the reverse. The Royal Infirmary is £6000 in debt; both the Northern and Royal Southern Hospitals have each a deficit of £2000; while the other hospitals are all more or less hampered with debt. Great efforts will have to be made to free these most useful charities from embarrassment, as well as to place them in a more stable position by increasing the subscription list and otherwise augmenting the income.

THE LATE RECORDER OF LIVERPOOL.

The news of Mr. John Bridge Aspinall's death was received here with much sorrow, the learned gentleman having been extremely popular with all classes. To all medical witnesses who appeared in his courts he was extremely courteous and affable, showing every regard to their convenience so far as he was able.

MEDICAL WITNESSES AT THE ASSIZES.

Whether the Grand Jury should or should not be perpetuated may be questioned; but that there should be proper accomodation for all witnesses, including medical witnesses, while waiting their turn, cannot be doubted. The arrangements at our local assize and sessions courts are abominable. All witnesses waiting to go before the Grand Jury are obliged to stand at the top of a flight of stairs, medical witnesses, solicitors, occasionally ladies, all being mixed up with the very lowest specimens of humanity to be found in this or any other city. One such experience may be instructive, but repetition makes it wearisome, and there can be no justification in perpetuating such a miserable arrangement.

MR. JUSTICE DAY ON CORPORAL PUNISHMENT.

The Criminal Law Amendment Bill has had the effect of bringing to justice many who, under the old law, would have escaped. In consequence of this, the number of charges of indecent outrage has greatly increased at the present assizes. In his charge to the Grand Jury Mr. Justice Day remarked upon the defective state of the law as regards these crimes. While in cases of violent assault and robbery of the smallest coin he could award corporal punishment, for the outrages on females he could only award penal servitude for long periods, which was only demoralising to the prisoners and expensive to the country. He regretted that the opinion of the country and sentiments of the public were so strongly opposed to corporal punishment.

THE CITY HOSPITAL FOR INFECTIOUS DISEASES.

The Hospital Sub-Committee of the Health Committee have passed a resolution that Dr. Hope shall temporarily reside at the Parkhill Hospital whenever in the opinion of the medical officer of health it is desirable that he should do so, and that during any period of such temporary residence he shall receive an allowance at the rate of £2 per week.

Liverpool, Feb. 15th.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

NEWCASTLE INFIRMARY.

THE annual court of governors was held last week, when some interesting facts were given as to the progress and work of this great institution. The infirmary, with its late addition, has now proper accommodation for 270 patients. On the whole, the hospital has been in a healthy condition during the year; but in reference to the outbreak of scarlet fever in July last, it was stated that one of the resident surgical assistants contracted the disease, and two nurses, one laundress, and seven patients became affected with the malady in succession. It is believed that the surgical assistant became infected while attending an out-patient in the casual department. The portion of the house where these cases occurred was at once emptied and thoroughly disinfected, and so the affection was stamped out. The number of in-patients treated during the year had been 2846, being 268 more than in the previous year. The greatest number in the house in one day had been 271. The whole number of out-patients received during the year had been 4932, being an increase of nearly 1000 on the previous year. The number of casuals treated during the year had been very large, amounting in all to 27,811, nearly 5000 more than in the previous year. Many other interesting facts and figures were given, which I must hold over for future consideration.

A CHEMIST'S MISTAKE.

At the South Shields County Court last week William Morris and his wife sued Messrs. Mason and Co., chemists, of South Shields, for damages sustained by them in consequence of injuries to the female plaintiff through the defendants having negligently supplied her with tincture of iron instead of tincture of rhubarb, for which she asked. For the defence it was contended that the plaintiff was supplied with what she had asked for. The judgment, however, was given for the plaintiff for £5 and costs.

APOPLEXY OR DRUNKENNESS?

At a late meeting of the Middlesbrough police magistrates an ex-inspector of police was charged with being found drunk and helpless on a doorstep by two police constables. The defendant tried to make out that it was a mistake of diagnosis on the part of the constables, and stated that he was suffering from apoplexy at the time; and proceeded

to give the Bench a very elaborate account of the differential symptoms observed in the two affections. The Bench, however, while giving him credti for much special medical acumen, fined him 10s., including costs, or seven days' imprisonment.

NORTHERN CORONERS ON UNQUALIFIED PRACTICE.

The Coroner of Newcastle, at an inquest held last week, made some strong remarks upon the subject of unqualified practitioners in the case of a child that had died suddenly after treatment by an unqualified practitioner, who, it appears, had also given the mother of the child a death certificate. The coroner told her "that it was a pity that she had not sought a properly qualified practitioner, because if she had done so no inquest would have been necessary." Alluding to the so-called "dispensaries," "there were," he said, "too many in the city, which in many instances were conducted by those who were anything but duly qualified. He would forward the certificate, which had been given to the proper authorities to deal with as they thought fit." At a late inquest at Jarrow the matter was also referred to by the coroner of that district; a child had died suddenly after having been attended by an unqualified practitioner. It was shown that the child had died of bronchitis, and might have recovered if proper means had been used at an earlier stage of the disease. The coroner, addressing the unqualified practitioner, said that this practice must be stopped. He thought it was a very hard case, especially in these bad times, that men had to be called away from their business to serve as jurymen, and that all the expense of an inquest might have been saved had the mother called in a registered practitioner. Another serious matter was the fact that the letters "M.D." came after his name on a note which he had given the mother supposed to have been the certificate of death. On the unqualified practitioner promising that it would not occur again, the jury returned a verdict of "Death from natural causes." Our coroners in the north are evidently giving more attention to the injury perpetrated on the public by illegal practitioners, to say nothing of the injustice done to the profession by many of these so-called "dispensaries."

Newcastle-on-Tyne, Feb. 16th.

EDINBURGH.

(From our own Correspondent.)

THE LATE DR ANGUS MACDONALD.

THE Edinburgh Medical School has suffered a severe loss in the early death of Dr. Angus Macdonald. The deceased gentleman was still in the prime of middle life; and it might well have been anticipated that his useful and successful career would have been greatly prolonged. Until the last few days he was in the full exercise of his teaching functions at the Royal College of Surgeons, and closely engaged in the arduous exertions of a very extensive private practice, in addition to his duties as physician to the Royal Infirmary and to the Maternity Hospital. His death has caused a deep and widespread feeling of regret in Edinburgh and throughout Scotland, not only amongst the members of his own profession, very many of whom looked to him for advice and aid in cases of difficulty, but also amongst the public at large, by whom he was well known and greatly respected.

VACCINIA AND VARIOLA.

At the last meeting of the Edinburgh Royal Society, Dr. J. B. Buist, Lecturer on Vaccination for the Local Government Board, presented a monograph upon the "Life History of the Micro-organisms associated with Variola and Vaccinia." In it are detailed the results of a long series of experiments, occupying nearly a year, which he carried out in the surgical laboratory of the University under the charge, of Professor Chiene. Dr. Buist, taking advantage of the most recent bacteriological methods, has succeeded in procuring cultivations of organisms from both diseases, and has made a series of interesting observations with each. He finds that the ape is susceptible to an artificially induced variola and vaccinia identical in all respects with the same conditions in the human subject. His practical observations on the difference between clear and opaque vaccine lymph are of great interest and importance. In the latter he describes an acid reaction, whilst in clear lymph the reaction is alkaline; and he attributes the opacity of lymph to the development in it of a microbe. His paper was stated to be only of a preliminary nature, and the further outcome of his observations, bacteriological and clinical, will be looked for with great interest.

Edinburgh, Feb. 16th.

ABERDEEN.

(From our own Correspondent.)

APPOINTMENT FOR DR. SIMPSON.

DR. SIMPSON has been appointed medical officer of health for Calcutta. This is an important and valuable appointment, and he is to be congratulated on receiving this well-merited recognition of the excellent work he has done in sanitary science during the past five years. Since he came to Aberdeen the death-rate has gradually decreased, and last year it reached the lowest figure ever recorded for the city.

EPIDEMIC OF DIPHTHERIA.

Diphtheria made its appearance in Aberdeen some six or eight weeks ago, and has gradually spread until now it may be said to be epidemic. The proportion of fatal cases is alarmingly large, and unfortunately the sanitary officials have so far failed to trace the cause of the outbreak, which is chiefly confined to the Rosemount and Mile-end districts of the town. It was here also that scarlet fever was so prevalent at the end of last year, and it is possible that the deficient water-supply may have some connexion with the rapid spread of zymotic diseases in this part of the town.

ABERDEEN GENERAL DISPENSARY.

Two vacancies are about to occur in the medical staff of the Aberdeen General Dispensary by the departure of Dr. Frank Ogston for New Zealand and by the resignation of Dr. MacGregor. A keen canvass for the appointments is being carried on. Rumour has it that Dr. Edmond and Dr. Gordon are to be the successful candidates.

(The name of the lecturer in University College who is a candidate for the chair of Physiology is Dr. MacWilliam, not Dr. William, as stated in my last communication.)

Aberdeen, Feb. 16th.

PARIS.

(From our own Correspondent.)

PTOMAINES AND THE MICROBE THEORY.

IN his enthusiasm, Professor Peter, in his discourse at the Academy of Medicine (which was noticed in my letter of last week) on the part played by ptomaines and microbes in the pathogeny of disease, almost left his hearers under the impression that he meant to say that all human ailments resulted from auto-infection by toxic substances generated in the system, thus ignoring, whether he did so intentionally or not, the pathogeny of specific or infectious diseases. Even M. Gautier, for whom Professor Peter stood up as champion, repudiated such an idea in the following terms, at the meeting of the Academy last week:—"I do not think that one can deduce from my researches the consequence of the spontaneity of disease in a great number of cases in which we see it transmitted by contagion, direct or indirect, from an organism in a pathological state to a healthy one in the full performance of normal physiological functions; still less would this spontaneity be admitted in the cases where it is certain that the contagium is one of those cellular ferments which are now so well known, thanks to the admirable works of M. Pasteur, the constitution, organisation, and evolution, ferment by which appears, and without which a specific malady is not produced; for instance, infectious charbon, rouget of the pig, cholera of fowls, leprosy, small-pox, scarlatina, syphilis, &c., in which one must admit the action of a virulent specific agent, and consequently organised, although in these cases the agent has not always been isolated." Moreover, the author added that while a specific affection cannot be produced spontaneously without the influence of some contagium intro-

duced into the organism from the exterior, there exists a great number of maladies the cause of which is in ourselves. It will therefore be absurd and dangerous, pushing to the extreme the consequences of the great discovery of the organised and living nature of the contagious elements of epidemic maladies, to believe that one must always admit the introduction of microbes in the animal economy when a disease breaks out. M. Pasteur himself never intended that this should be supposed. Gout, arthritism and its numerous manifestations, acute rheumatism and the acid dyscrasias, anæmia with its accidents and varieties, diabetes and the other diseases resulting from incomplete oxidations, famine fever and the other maladies caused by low nutrition, pneumonia and pleurisy, traumatic fever, with contusions without any wound of the skin, finally all the numerous maladies which result from an affection of the nervous system, and which, through its medium, affects the sensibility, mobility, nutrition, and intelligence, are diseases, febrile or not, the primary causes of which are in us. It is in this sense that the subject must be studied. Thus it may be seen that, while approving of Professor Peter's theory, M. Gautier did justice to M. Pasteur.

DEATH OF DR. MACCARTHY.

Dr. MacCarthy, the oldest British medical practitioner in Paris, died on Wednesday, the 10th inst., in the seventieth year of his age. For some months past the deceased gentleman had been in failing health, and at the beginning of last week he was seized with cerebral hæmorrhage, which resulted in hemiplegia, from which he never rallied. Dr. MacCarthy was an Irishman by birth, and came over to Paris as a lad. He studied medicine in this country, and took his degree at the Faculty of Paris in 1844. Some twenty years ago, with Sir Joseph Olliffe and Dr. Campbell, Dr. MacCarthy had the leading English practice in Paris. He also had a very good French connexion, and was much esteemed by all who knew him.

Paris, Feb. 16th.

BERLIN.

(From our own Correspondent.)

BOARD OF HEALTH IN JAPAN.

IN Japan a Board of Health has been created, formed on the pattern of the board of the same name of the German Imperial Government. The management of the Japan board is in the hands of Dr. Mansanori Ogata, Professor of Hygiene in Tokio, who studied for several years in Munich, Leipsic, and Berlin, and was a frequent attendant at the laboratories of Professors Pettenkofer and Koch. On returning to Japan he applied the German method of bacteriological inquiry to the investigation of the cause of a contagious disease, called "beri-beri," indigenous to Japan. The results of this investigation are found in the *Aerztlichen Intelligenz Blatt*, in Munich.

THE NEW DIRECTOR AT THE TOWN HOSPITAL.

Dr. Riecos has resigned his post, and Professor Fuerbringer is to succeed him, having been summoned to Berlin. He was born in 1850 at Delitsch, in the province of Saxony, and pursued his medical studies from 1870 till 1874 at Jena and Heidelberg. At the latter place he entered into close relations with the Kliniker Friedreich. After his promotion Professor Fuerbringer became clinical assistant, a post he occupied until he obtained a Readership at Jena in 1879, when the office of the management of the Clinic for Children's Diseases and Diseases of the Skin was conferred on him. Since 1881 he has also conducted the district physical office.

MEDICAL SCHOOL SOCIETY.

The secretary of this Society, at a meeting on Jan. 28th, read the annual report; after which the election of managers took place, in which the privy councillor, Dr. Steinthal, and the grammar-school director, Dr. Kübler, were elected as chairman and vice-chairman; as secretaries, Dr. Taselowski and Dr. Brullow; and as treasurer, Dr. Korn. Then Dr. Taselowski reported on the cleaning of school-yards and the heating of class-rooms. Respecting the latter point, reference was made to the requirement that at the beginning of lessons the temperature should not be lower than 44° F. In the discussion several speakers alluded to the vitiated air in class-rooms and the insufficiency of ventilation, and it was recommended that the windows in schools be opened for a few seconds at the end of each hour in order to effect a thorough renewal of the air, care being taken to provide against draughts. School closets, it was unanimously agreed, should always be erected in a detached building, and should be flushed daily.

Berlin.

Obituary.

DR. ANGUS MACDONALD.

THE notice of Dr. Angus Macdonald's death, though partly expected from the serious nature of his illness, has yet come as a great and sudden blow to his many friends. Edinburgh medical circles have been deprived of one of their brightest ornaments; and modern Athens, lay and professional, grieves as it has not done since the untimely death of Warburton Begbie. This regret is not to be wondered at, for Angus Macdonald was not a common man. In his youth his lines lay in no pleasant places. Born in an agricultural parish in the north of Scotland, the *res angusta domi* necessitated his working for his daily livelihood, and he stood between the hilts of the plough until his manhood was nearly reached. But even when thus engaged his ambition soared, and in the evenings, when the day's work was over, he went to the parish schoolmaster and learned Latin. When he was sufficiently conversant with this, he went, a raw country lad, to Aberdeen University, and fortunately secured a bursary, which enabled him, with teaching, while a student, to keep the wolf from the door. He was a distinguished Arts student of the University, taking a foremost place in the classes; and when the Arts course was finished he entered the Divinity Hall, for he thought he would be a minister. His vocation, however, was not to be clerical, and after pursuing the study of divinity for a year he went to Edinburgh and attended the University as a medical student in 1860. The Edinburgh school was then in the zenith of its fame. John Goodsir taught anatomy as he alone could do it. Hughes Bennett, the model clinical teacher of medicine, formed his admiring circle of students in the wards. James Syme stood neat and calm and self-possessed, while he guided with unerring skill and rare dexterity the knife through difficult structures of the frame. James Simpson—"body of Bacchus—head of Jove"—spoke with the brilliancy of exceptional ability, and obtained enthusiastic admiration in his class-room. Robert Christison, the polished physician, the gentleman *sans peur et sans reproche*, told his young audience of men's numerous ailments and their remedies. The ardent nature of Angus Macdonald glowed under such a galaxy of talent, and he worked late and early, always taking a first position in his classes. Many of his fellow-students will remember his peculiar place—right in front of the professor; and his physique—the stooping shoulders, the broad square head, rarely lifted from the note-book, on which he wrote with an almost marvellous celerity. Occasionally, when some happy remark came from the professorial chair, Macdonald raised his face to smile, and one perceived then the keen piercing eye and the pale lineaments of his highly intellectual features. At the end of the session, when the class prize list was read out with Angus Macdonald's name first, students cheered, for they knew the man that deserved it had won the reward, and they felt that he was head and shoulders above his competitors. After obtaining the degree of M.D. of Edinburgh in 1864, he settled in practice in the city of his adoption, and step by step gained the foremost place in the branch to which he specially turned his attention. When Dr. Matthews Duncan went to London, Dr. Macdonald was recognised by the profession as his successor, and he nobly fulfilled the anticipations that had been formed of him. For twenty years he was a constant contributor to medical literature, and his style was terse, pointed, and true. His was also a familiar figure at the various clinical and obstetrical societies of Edinburgh, and until he died he held the appointments of Physician and Clinical Lecturer on Diseases of Women in the Edinburgh Royal Infirmary, Physician to the Royal Maternity Hospital, Edinburgh, and Lecturer on Midwifery and Diseases of Women at the Surgeons' Hall.

Thus, briefly sketched, was Angus Macdonald's career as a student and physician. It was a distinguished one. As a private gentleman he was singularly beloved, and ever ready with ripe counsel and wise encouragement to guide the young student who came to him for advice. He was a true friend, and the grasp of his hand was firm and manly, revealing the inner nature of his kindly heart. He spoke to all courteously; to those he liked he showed his genuine, open disposition, the pure heart, the charity that envieth not, and all the graces of the Christian character. Dr. Macdonald leaves a widow, two daughters, and five sons to mourn his early death.

E. D. L. GILLOTT, M.R.C.S., L.S.A.LOND.

ON February 6th Sheffield lost one of its oldest medical men, in the person of Mr. E. D. L. Gillott. He took the licence of the 'Apothecaries' Society in 1829, and became a member of the College of Surgeons in 1830, so that when he passed away he had been a member of the medical profession for considerably over half a century. His early life, his industry, and his devotion to his profession are thus spoken of by one who enjoyed his intimacy for fifty-seven years: "We were fellow-pupils in Dublin in 1829–30, where he distinguished himself by his marked indefatigable minute anatomical research, carried on during his long career in Sheffield, commencing with his becoming Lecturer on Anatomy at the Medical School, from first to last endeavouring to the utmost of his ability to keep pace with the times. Oft, in the hour of need, have I had an opportunity of testing the inestimable professional qualities of my departed friend, ever willing and ready to lend a helping hand in the hour of peril." Commencing as a general practitioner, he, after some years, joined the late Mr. S. Gregory, surgeon to the General Infirmary, at the Eye Dispensary, which the latter had some time previously established in a quiet unostentatious manner. A happy intercourse between these two continued for twenty years, until Mr. Gregory left Sheffield, and soon afterwards died. Mr. Gillott continued working the Eye Dispensary until 1877. On the appointment of his then colleague to the charge of the newly created special department at the General Infirmary the *raison d'être* for such a dispensary had ceased, and he willingly consented to its being closed. For many years, however, he had practised purely as a specialist, and both as an oculist and aurist obtained a wide repute; whilst his keen insight into everything passing in his specialty and his wide knowledge of its literature, British and foreign, were remarkable. He may truly be said to have always been a student. He attended meetings of the International Ophthalmological Congress, and frequently paid visits to Paris, Berlin, and Vienna, and each time took the opportunity of adding to his store of knowledge by visits to the various cliniques in those cities. At the time also when the ophthalmoscope had established its place as an instrument of extreme value, and at an age when most men would be loth to take up with "new-fangled" ideas, he visited a continental city, Vienna it is thought, where the opportunities would be good for mastering the use of an appliance of which he fully appreciated the importance and value. As a student he had attended Moorfields when Tyrrel was a surgeon there. He gradually declined practice, and for some years had retired altogether. His literary taste found him amusement and occupation at the library and at home. He was always ready with a classical or poetic quotation. Until recently he had been active and strong. He succumbed to the combined attacks of Bright's disease, with heart trouble, bronchitis, and asthma, but he bore his sufferings with exemplary patience.

NORTH-WESTERN ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.—At the monthly meeting of the members of this Association, on the 11th inst., Mr. Vacher read the report of the committee appointed to take action, along with representatives of other associations, to obtain better security of tenure of office for medical officers of health. Very little progress has been made, and it was resolved that the committee should continue to take such action as seemed desirable to secure the object in view. Mr. Vacher also submitted a further report with regard to cholera precautions.

Medical News.

UNIVERSITY OF CAMBRIDGE. — At a congregation on the 11th inst. the degree of M.B. was conferred on

Herbert Charles Walter Jones, Downing.

COLLEGE OF PHYSICIANS IN IRELAND.—At the February examinations the following obtained the licences in Medicine and Midwifery of the College:—

MEDICINE.—Simon Addis, Michael Joseph Boyan, Vesey Henry Wm. Davoren, Louis Demetriadi, William Hartford, William George Kennedy, George Okill, Thomas O'Callaghan, John William Power, Robert Dudley Algeo Stone, George Woods, Charles Augustus Young.

MIDWIFERY.—Simon Addis, Louis Demetriadi, William George Kennedy, John William Power, George Woods.

The undermentioned has been admitted a Member:—

Henry Plunkett Esmonde-White, Surgeon-Major, A.M.D.

SOCIETY OF APOTHECARIES.—The following gentlemen passed the examination in the Science and Practice of Medicine, Surgery, and Midwifery, and received certificates to practise, on the 11th inst.:—

Castle, Charles Wigram Marshall, The Avenue, Blackheath.
Scatliff, P. Melancthon, M.R.C.S., Macaulay-road, Clapham-common.

The following also passed and received a certificate:—

Brocks, William Harrison, King David-lane, Shadwell.

ROYAL COLLEGES OF PHYSICIANS AND SURGEONS OF EDINBURGH.—In the pass-list published last week the name "Herbert Peek" should have been Herbert Peck.

A FATAL case of poisoning by sewer gas has just occurred at Oldham.

ON the 16th inst. Sir James Crichton Browne delivered to the members of the Leeds Philosophical and Literary Society a lecture on the "Education of the Hand."

MEDICAL MAGISTRATE. — John Constable, M.D., Leuchars, has been appointed a Justice of the Peace for the county of Fife.

VACCINATION GRANT.—Dr. Dalston, of the Brough District of the East Ward Union, has been awarded the Government grant for efficient vaccination.

THE festival dinner in aid of the Extension Fund of St. Mary's Hospital is to be held on April 2nd, under the presidency of the Lord Mayor.

THE St. Petersburg Municipal Sanitary Committee has decided to set apart a portion of the Alexander Hospital for the clinical instruction of female students and to erect lecture-rooms for them.

A CHEMIST at Battersea named Gill has been committed to take his trial for manslaughter, a coroner's jury having found that the death of a young man was caused from the effects of a dose of opium given by him in mistake for a black draught.

THE first meeting of the Carmichael College Medical Science Association was held on Tuesday last, presided over by Dr. Gordon, when the opening address was given by Dr. J. Moore on the Relations of Clinical Teaching to the Work of the Society.

MUNIFICENT BEQUESTS.—Mr. James M'Ewan of the firm of Smith and Sharp, sugar brokers, Glasgow, has left legacies amounting to £22,000 to charitable institutions in Glasgow and the west of Scotland. Of this sum, the Royal Infirmary of Glasgow and the Western Infirmary each receives £5000.

THE HOSPITAL SATURDAY FUND. — The Board of Delegates of this fund met on the 13th inst., when Mr. Samuel Morley was unanimously re-elected President and Mr. H. N. Hamilton-Hoare honorary treasurer for the ensuing year. The Secretary reported that there was a credit balance at the bank of £500 after payment of the awards, amounting to £9500, and all expenses.

THE LATE DR. P. B. CONOLLY.—Two latten brasses have been erected, one at Netley and the other at Charing-cross Medical School, in memory of Dr. P. B. Conolly, who died whilst serving in the Camel Corps during the Gordon relief expedition. He was present at the siege of Plevna and the battles of Zlobani, Kambala, Ulundi, Kassassin, and Teb-el-Kebir, and received two medals with clasps, the Khedive's Star and Gold Cross of Roumania. The memorials are from the works of Mr. Gawthorp of Long-acre.

VALENTINES FOR HOSPITAL PATIENTS.—Some four hundred scrap albums, contributed by readers of the *Christian Million* newspaper, were distributed on Monday last, to the patients in the following London hospitals as valentines:—St. Thomas's, St. Bartholomew's, University College, Royal Free, Guy's, Shadwell Children's, London, Victoria Hospital for Children, Homœopathic, and Samaritan Free Hospital for Women and Children.

KIDDERMINSTER INFIRMARY.—The annual meeting of the management committee of, and subscribers to, this institution was held on the 5th inst., when a lengthy discussion took place touching the desirability of establishing a children's hospital in connexion with the charity. It was ultimately decided to convert a ward which has been occasionally used for the reception of patients needing isolation into a children's hospital, the cost (about £250) being defrayed by Mr. T. Lea.

LONDON FEVER HOSPITAL.—The annual meeting of the governors of this institution was held on the 11th inst. From the report which was adopted it appeared that during the year the total number of cases admitted to the hospital was 486. The mortality amongst patients amounted to only 4·04 per cent.—a lower percentage than that of any previous year. The annual subscriptions for the year amounted to £2215, being an increase of £210 on the previous year. The expenditure reached £8543, an increase of £1842.

ADULTERATION OF FOOD.—Dr. Redwood, the public analyst for the parish of Clerkenwell, has reported that during the past quarter he analysed 18 samples of milk, 17 of butter, and 2 of coffee. Of the 17 of butter, 12 were adulterated with foreign fat to an extent varying from 75 to 90 per cent., and convictions were obtained in seven cases. Of the 18 samples of milk, 3 were adulterated with 14 per cent. and 2 with 22 per cent. of added water, and convictions were obtained in each case. The 2 samples of coffee were adulterated with chicory to the extent of 20 per cent.

CHEAP FOOD FOR THE PEOPLE.—At a meeting recently held under the presidency of Dr. B. W. Richardson, the following resolution was unanimously carried:—"That in the opinion of this meeting the most practical mode of developing the best system of supplying cheap dinners and other meals for the people ought to include the establishment of public kitchens and depôts, at which the dinners and meals can be partaken, and from which they can be supplied to workshops, factories, and private houses. That such a system, supported by the general and influential public, would be immediately popular, and that the chairman be requested to communicate this view of working men themselves to the leading organs of public opinion." A committee has been formed to carry the above into effect.

VOLUNTEER MEDICAL STAFF CORPS.—The second regimental smoking concert took place on February 10th, at St. Stephen's Restaurant, Westminster, and was, we understand, a greater success even than the first of the series. It is gratifying to see the efforts of the committee meeting with such encouragement, as by means of entertainments of this description the men are brought together during the winter season, and that *esprit de corps* at which all regiments aim, and of which they are justly proud, is properly maintained. The concert under notice was given by members of No. 2 company, which consists of students of St. Mary's, London, and Guy's Hospitals, and they fully kept up the reputation of their respective schools. The chair was taken by Surgeon Norton, who commands the company, supported by Surgeon-Commandant Cantlie, Surgeon Casson, Surgeon Raw, Surgeon-Major Pearce (Artists), Surgeon Lane (18th Middlesex), and other officers who take a keen interest in the welfare of this corps. A most enjoyable evening was spent. The third concert of the series will be given early in March by the members of No. 1 company, which is formed by students from Charing-cross, Middlesex, University, and King's College Hospitals.

PRECAUTIONS AGAINST CHOLERA IN QUEENSLAND.—His Excellency the Governor of Queensland, with the advice of the Executive Council, has been pleased to appoint the following gentlemen to be medical officers of health, for the purposes of the regulations of the Central Board of Health for the treatment of persons affected with cholera, and for preventing the spread of that disease:—M. Mathison, M.D., Aramac; W. S. Webb, M.R.C.S., Blackall; F. H. V. Voss, F.R.C.S.Ed., Bowen; C. J. H. Wray, L.R.C.S., L.R.C.P.Ed., Brisbane; J. E. Usher, L.R.C.P.Lond., Brisbane; T. H. May, M.D., Bundaberg; E. A. Koch, M.D., Cairns; W. B. Kirkaldy, M.B. & C.M.Ed., Charleville; E. E. J. Mohs, M.D., Charters Towers; S. Candiottis, M.D., Clermont; G. A. Von Somerson, M.D., Cloncurry; W. Howlin, L.R.C.S.Ed., Dalby; E. M. Fitzgerald, L.R.C.P., Gayndah; C. E. Sharpe, L.R.C.P., Georgetown; T. L. Bancroft, M.B., Geraldton; H. Girdlestone, M.R.C.S., L.S.A.Lond., Goondiwindi; J. P. Ryan, L.R.C.S., Gympie; W. D. Bowkett, M.R.C.S., Herberton; W. C. C. Macdonald, M.B., Ingham; E. R. Webb, M.R.C.S., Ipswich; A. Cutfield, M.R.C.S., L.S.A.Lond., Mackay; E. K. Overend, M.B., Muttaburra; D. W. O'Connor, L.R.C.P. Ed., Maryborough; T. S. Dyson, M.R.C.S., L.S.A. Lond., Normanton; W. L. Marley, M.R.C.S., Port Douglas; W. T. Cuthbert, L.R.C.S.I., Ravenswood; W. F. Thurston, L.R.C.S. &c., Rockhampton; G. Comyn, B.M., Roma; R. H. Symes, L.R.C.S.I., Springsure; A. Orton, M.R.C.S., L.S.A.Lond., Stanthorpe; A. Nicoll, M.B., Tambo; A. E. Salter, M.B., Ch.B., Thursday Island; E. Roberts, M.R.C.S., Toowoomba; T. Ridgley, M.B., Townsville; F. Margetts, L.S.A. Lond., M.R.C.S., Warwick; H. Finlay, M.D., Winton.

CHAIR OF PHARMACOLOGY IN MELBOURNE.—We understand that in connexion with the University of Melbourne and the Pharmaceutical Society of Australasia new buildings have been opened by the Government, with a grant in aid of their furnishing, and another in aid of the professor's salary. The chair has been offered to, and accepted by, Mr. Alfred H. Jackson, B.Sc., M.P.S., F.C.S., Associate of Owens College, Manchester. This election is the latest addition to the number of professors emanating from Owens College, amongst whom we can recall Atkinson of Sandhurst, Bedson of Newcastle, Carnelly of Dundee, Dougan of Belfast, Napier of Richmond, Poynting of Birmingham, Smithells of Leeds, Sugden of Headingley, Tait of Baroda, Thomson of Cambridge, Thorpe of South Kensington, and Young of Clifton, besides several who hold posts in their *alma mater*, such as Hopkinson, Dreschfeld, Collier, Thorburn, Whitney, Swanick, Harris, Haslam, and others. Prof. Jackson was also a distinguished student in the Pharmaceutical Society's School at Bloomsbury-square, W.C., where he won the Council's Silver Medal, &c., in 1878. He has published several papers on pharmaceutical subjects, such as "Dialysed Iron," "Tartar Emetic," Essential Oils of Cinnamon and Cassia," &c. His chief training has been in the science and medical departments of Owens College.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

ABBOTT, C. E., M.R.C.S., L.K.Q.C.P.I., has been reappointed Medical Officer of Health for the Braintree Rural Sanitary District, for one year.

BROCKATT, A. A., L.R.C.P., M.R.C.S., has been appointed Resident Accoucheur to St. Thomas's Hospital.

CAMPBELL, W. MACFIE, M.D.Ed., M.R.C.S., has been appointed Consulting Surgeon to the Liverpool Northern Hospital.

COOPER, CHARLES B., L.R.C.P.Lond., M.R.C.S., L.S.A.Lond., late Assistant House-Surgeon, has been appointed House-Physician to the Liverpool Northern Hospital, vice T. A. Bradshaw, B.A., M.D., resigned.

CROWDY, F. D., M.B.Oxon., M.R.C.S., L.S.A.Lond., has been reappointed House-Surgeon to St. Thomas's Hospital.

FISHER, ALFRED, M.R.C.S., L.R.C.P.Ed., late Ambulance Surgeon, has been appointed Assistant House-Surgeon to the Liverpool Northern Hospital, vice Charles B. Cooper, L.R.C.P.Lond., M.R.C.S., promoted.

GODFREY, A. E., L.R.C.P., M.R.C.S., has been appointed Assistant House-Physician to St. Thomas's Hospital.

GOODDY, E. S., M.R.C.S., L.S.A.Lond., has been appointed Assistant House-Surgeon to St. Thomas's Hospital.

HAIG, F. M., M.R.C.S., L.S.A.Lond., has been reappointed Non Resident House-Physician to St. Thomas's Hospital.

HAMILTON, GEORGE, F.R.C.S.Ed., L.R.C.P., has been appointed Honorary Surgeon to the Liverpool Northern Hospital, vice W. Macfie Campbell, M.D., resigned.

HAW, WALTER HERBERT, B.A., M.R.C.S., L.S.A.Lond., has been appointed Resident Surgeon to the Portland Town Dispensary Henry-street, N.W.

HOAD, WILLIAM, M.B., C.M.Edin., has been appointed Government Medical Officer, Health Officer, Public Vaccinator, and Commissioner of Lunacy for the Seychelles Island, vice Lepper, resigned.

HOPKINS, JOHN W., L.R.C.P., L.R.C.S., has been appointed Medical Officer for the Snettisham District of the Dorking Union.

HUGHES, Mr. THOMAS W., has been appointed Medical Officer for the Aberdaran District of the Pwllheli Union.

HUTTON, J. S., L.R.C.P., M.R.C.S., L.S.A.Lond., has been reappointed Resident House-Physician to St. Thomas's Hospital.

KIDD, CAMERON, L.R.C.P., M.R.C.S., has been appointed House-Surgeon to St. Thomas's Hospital.

MAKINS, GEORGE HENRY, F.R.C.S.Eng., has been appointed Assistant Surgeon to the Evelina Hospital for Children.

NICHOL, F. E., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant in the Skin Department of St. Thomas's Hospital.

ORCHARD, ALFRED, L.R.C.P., M.R.C.S., has been appointed Medical Officer for the First District and the Workhouse of the Ashby-de-la-Zouch Union.

PARSONS, F. G., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant in the Throat Department of St. Thomas's Hospital.

PLOWMAN, S., F.R.C.S., L.R.C.P., has been reappointed Clinical Assistant in the Throat Department of St. Thomas's Hospital.

POUND, Mr. CLEMENT, has been appointed House-Surgeon to the Middlesex Hospital.

RITCHIE, E. D., B.C.Camb., M.R.C.S., L.S.A.Lond., has been re-appointed Resident House-Physician to St. Thomas's Hospital.

STAVELEY, W. H. C., L.R.C.P., M.R.C.S., has been appointed Clinical Assistant in the Ear Department of St. Thomas's Hospital.

WARRILLOW, EDWARD S., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer and Public Vaccinator to the Headcorn and Alcomb District of the Hollingbourn Union, vice Warrillow, deceased.

WEAVER, JOHN J., M.R.C.S., L.S.A.Lond., has been appointed House-Surgeon to the Oldham Infirmary, vice Holton, resigned.

Births, Marriages, and Deaths.

BIRTHS.

ASHWORTH.—On the 17th inst., at Halstead, Essex, the wife of J. Henry Ashworth, M.R.C.P.Ed., of a son.

CARR.—On the 8th inst., at Long-street, Devizes, the wife of Alfred Alexander Carr, M.R.C.S., of a daughter.

CROSS.—On the 11th inst., at Stanhope-terrace, Regent's-park, the wife of John Cross, M.D.Camb., of a daughter.

EVANS.—On the 14th inst., at Denmark Lodge, The Grove, Clapham-common, the wife of Lewis Evans, L.R.C.P.Ed., L.F.P.S.Glas., of a son.

HOFFMAN.—On the 14th inst., at Coombe Lodge, West-hill, Putney-heath, the wife of H. W. Hoffman, M.B., of a daughter.

MILBURN.—On the 14th inst., at 43, Claremont-square, N., the wife of F. L. Milburn, M.R.C.S., &c., of a son.

MOORE.—On the 6th ult., at Langley, St. Andrews, Jamaica, the wife of York T. G. Moore, L.R.C.P.Ed., M.R.C.S., of a daughter.

VLIELAND.—On the 15th inst., at Sydney Lodge, St. Thomas, Devon, the wife of C. J. Vlieland, M.R.C.S., of a daughter.

MARRIAGES.

ALLDEN—KING.—On the 3rd inst., at St. Peter's, Cranley-gardens, by the Rev. Hon. F. E. C. Byng, Vicar, and Chaplain to the Queen, George H. Allden, M.B., of Shirley, Southampton, to Mary Manuela King, widow of D. A. King, M.B., and third daughter of Mrs. Stubbs, of 6, Edinburgh-terrace, Kensington.

BAILLIE—JACKSON.—On the 10th inst., at St. Catherine's Church, Wakefield, Peter Baillie, M.B., of Whitworth, Lancashire, to Violet Hamilton, daughter of John Jackson, of Heathfield Lodge, Wakefield.

CLARK—WHITE.—On the 16th inst., at St. James's, Paddington, Oscar William Clark, M.B., of Gloucester, fourth son of the late Frederick Clark, of Cowick, Yorkshire, to Kathleen Emily, fourth daughter of Robert Faulder White, of Sussex-gardens, Hyde-park, W.

GULLAND—BRADISH. On the 10th inst., at St. Matthew's Church, Cheltenham, Surgeon-General Alexander Gulland, A.M.D., of Berkeley-villas, Cheltenham, to Margaret, second daughter of the late William Bradish, of Southern House, Cheltenham.

PEARSON—SNELLER.—On the 10th inst., at St. George's, Canterbury, Harry Pearson, M.R.C.S., of West Malling, Kent, and younger son of D. Gilbert, of Buckingham Palace-road, London, S.W., to Edith Hill, third daughter of the late James Vidgen Sneller, of Canterbury.

SMITH—CUBITT.—On the 13th inst., at St. Peter's Church, Bournemouth, Protheroe Smith, M.D., of Park-street, Grosvenor-square, London, to Emma, widow of Edward George Cubitt, Esq., late of Honing Hall, Norfolk.

DEATHS.

DE'ATH.—On the 11th inst., at Buckingham (suddenly), Robert De'Ath, M.R.C.S., L.S.A.Lond., aged 57.

HOPE.—On the 10th inst., at Auriol-road, West Kensington, George Carfrae Hope, M.D., F.R.C.S.Edin., in his 75th year.

LANCHESTER.—On the 13th inst., at Bracondale, Norwich, Thomas William Lanchester, M.D., formerly of Yoxford, Suffolk, aged 81.

MORRIS.—On the 12th inst., at St. Mary's House, Chester-le-street, Walter Cameron Morris, M.B., M.R.C.S., aged 35.

PAYNE.—On the 13th inst., at Clifden, Connemara (suddenly), Christopher James Payne, M.D., aged 65.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

Medical Diary for the ensuing Week.

Monday, February 22.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.

ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesdays, same hour.

CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2 P.M.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Charles Stewart: On the Organs of Hearing.

SOCIETY OF ARTS.—8 P.M. Prof. F. Guthrie: Science Teaching (Cantor Lecture).

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Mr. R. Brudenell Carter: On the Combined Action of Cocaine and Nitrate of Silver in certain Superficial Affections of the Eyes.—Dr. A. R. Sansom: Notes on Severe Endocarditis, with special reference to Cause and Effect.—Dr. W. H. White: A case of Aneurysm of the Aorta.

Tuesday, February 23.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 and Thursdays at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Mr. Charles T. Newton: The Unexhibited Portion of the Greek and Roman Sculptures in the British Museum.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8.30 P.M. Dr. Cayley: A case of Thoracic Aneurysm treated by the Introduction of Steel Wire into the Sac.—Mr. George Pollock: On the Changes which occur in Bone and Soft Tissues after Amputation of a Limb, and from certain other conditions.—Mr. J. Bland Sutton: A case of General Seborrhœa, or "Harlequin" Fœtus.

ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.—8.30 P.M. Mr. A. W. Howitt: On Australian Medicine Men.—Mr. Adolphus Mann: On the Numerals of the Yoruba Nation.

Wednesday, February 24.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesdays and Thursdays, 1.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Skin Department, Tuesdays and Fridays, 9.30 A.M.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.

LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Charles Stewart: On the Organs of Hearing.

HUNTERIAN SOCIETY.—8 P.M. Mr. Corner will take the chair as President.—Dr. Stowers: Rodent Ulcer.

SOCIETY OF ARTS.—8 P.M. Prof. W. C. Unwin: The Employment of Autographic Records in Testing Materials.

BRITISH GYNÆCOLOGICAL SOCIETY.—8.30 P.M. Specimens will be shown by Drs. Mansell Moullin, Grigg, Fancourt Barnes, and others. Adjourned Discussion on Dr. Chalmers' paper on Puerperal Septicæmia.

Thursday, February 25.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Prof. W. Boyd Dawkins: The Ancient Geography of Britain.

SOCIETY OF ARTS.—8 P.M. Prof. W. N. Hartley: Photography and the Spectroscope in their Applications to Chemical Analysis.

Friday, February 26

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. Charles Stewart: On the Organs of Hearing.

CLINICAL SOCIETY OF LONDON.—8.30 P.M. Mr. C. Mansell Moullin: Traumatic Inguinal Aneurysm, Rupture of Sac, Ligature of the Common Femoral and External Iliac Arteries.—Mr. Charters Symonds: A case of Aneurysm occurring in Stump.—Dr. Goodhart: Intussusception of the Upper Part of the Jejunum.—Mr. Barker: Acute Intestinal Obstruction followed by Acute General Peritonitis, Abdominal Section, Release of the Implicated Bowel, Peritoneum thoroughly Sponged out, Rapid Recovery.—Mr. Godlee: Case illustrating the Effects upon the Eye of Injury to the Sympathetic in the Neck (living specimen).

ROYAL INSTITUTION OF GREAT BRITAIN.—9 P.M. Mr. A. A. Common: Photography as an Aid to Astronomy.

Saturday, February 27.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.

ROYAL INSTITUTION OF GREAT BRITAIN.—3 P.M. Rev. C. Taylor: The History of Geometry.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, Feb. 18th, 1886.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Feb. 12	30·03	S.W.	41	40	...	44	34	·03	Overcast
,, 13	29·96	S.W.	43	42	...	47	40	·02	Overcast
,, 14	29·81	S.W.	42	40	...	44	39	...	Cloudy
,, 15	30·03	N.E.	40	38	...	42	37	·04	Overcast
,, 16	29·99	E.	36	35	...	37	35	·05	Overcast
,, 17	29·98	N.E.	35	34	...	38	33	...	Overcast
,, 18	30·15	N.E.	36	35	...	39	34	...	Overcast

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

HELEN PRIDEAUX MEMORIAL FUND.

THE following additional contributions to the fund have been received from members of the medical profession.

Mrs. Scharlieb, M.B.Lond.	£5	5	0	Sir Spencer Wells, Bart....	£2	2	0
M. L. S.	5	0	0	W. A. Meredith, Esq. ...	2	2	0
Dr. Hughlings Jackson, F.R.S.	3	3	0	Dr. Blanc	2	2	0
Miss Hitchcock	3	0	0	J. G. Mackinlay, Esq. ...	1	1	0
Watson Cheyne, Esq. ...	2	2	0	Miss Kate Mitchell ...	1	1	0
Dr. W. S. Playfair ...	2	2	0	Mrs. Julia Mitchell ...	1	1	0
Dr. Lauder Brunton, F.R.S.	2	2	0	W. H. Madden, Esq. ...	1	1	0
Dr. Garrod, F.R.S. ...	2	2	0	Miss Agnes McLaren, M.D.	1	1	0
Dr. Broadbent	2	2	0	Professor Marshall, F.R.S.	1	1	0
Miss Ann Clark, M.D. ...	2	2	0	Mrs. Marshall, M.D. ...	1	1	0
				Mrs. Rushbrook	0	10	6

Subscriptions may be sent to the treasurer, the Dowager Lady Stanley of Alderley, 40, Dover-street, W., or to the honorary secretary, Mrs. Garret Anderson, M.D., 4, Upper Berkeley-street, W. A meeting of subscribers and friends will be held at 4 P.M. on Saturday, Feb. 20th, in the Medical Society's Rooms, 11, Chandos-street, Sir W. W. Gull, Bart., M.D., in the chair.

Mr. G. W. Hambleton.—We do not think our correspondent can be bound to publish the results of his researches until he deems such researches complete.

MUMPS.

To the Editor of THE LANCET.

SIR,—There is a rule in force at the principal schools of the town in which I reside that boys and girls of a family are forbidden to attend school if one of their number suffers from mumps, even in its initial stage, although a strict quarantine is observed. I am anxious to know if the profession considers this rule both wise and necessary. I myself am not competent to give an opinion, as I passed thirty-two years in the Indian Medical Service, and had no experience of the above disease. I shall feel much obliged to those who have the experience if they will express their opinion in your journal.

I am, Sir, yours faithfully,

J. A. C. HUTCHINSON, M.D.,
Surg.-Gen. Ret. List.

Feb. 15th, 1886.

"FRACTURE OF THE CLAVICLE."

To the Editor of THE LANCET.

SIR,—In reference to the communication of Dr. E. D. McNicoll in your issue of the 30th ult., allow me to say that I had a case of fracture of the clavicle in a lad of fourteen, the result of a fall on the ice whilst sliding on Jan. 10th last. Still, serious accidents during the ice season, other than immersions, seem to be wonderfully infrequent.

Believe me, Sir, yours faithfully,

G. POUND

Odiham, Feb. 2nd, 1886.

LITERATURE OF SNAKE POISON AND SELF-VINDICATION.

UNDER the above title Dr. Gopaul Chunder Roy writes to us complaining that it does not afford much encouragement to workers for the sake of science to find their researches ignored and shelved into obscurity by brother members of the medical profession. Our correspondent states that he has in India been singularly unfortunate in this respect, and in proof of this assertion he refers to an article written by him, and published in 1876 in the *Indian Medical Gazette*, on the action of snake-poison of the blood, in which, against the accepted theory of Sir Joseph Fayrer and Drs. Brunton, Lewis, Cuningham, and Weir Mitchell, he attempted to prove that snake poison has a decided action on the blood. From Mr. Richard's small book, "The Landmarks of Snake Poison Literature," Dr. Roy gathers that the same view has been endorsed by two prominent contributors on the subject—viz., Dr. Wolfenden, late Professor of Physiology at the Charing-cross Medical School, and Dr. Lacerda. In the paper already alluded to, Dr. Roy also stated that the local effect of cobra poison on the blood was not that of a vital change, a view afterwards endorsed by Dr. Mitchell and Sir Joseph Fayrer, and recommended the administration of chlorate of potash, anticipating Dr. Lacerda's discovery of the antidotal virtue of permanganate of potash. Again, our correspondent states that in 1872 he read a paper on the solvent action of papya juice on the nitrogenous articles of food; and although the first to make a systematic inquiry on the subject, his labours were ignored by M. Wurtz, who in 1880 isolated the ferment, and named it "papyaine." Dr. Roy also alludes to his researches on the nature of malaria, and to a description of the phenomena met with in the blood, which was embodied in his official report for 1881, and is practically identical with the description of Professor Bizzozero's blood particles, given in this journal on Jan. 31st, 1882. While fully aware of the necessary imperfections of his original researches, our correspondent claims amongst his co-workers the humble place of an artist who, though not skilful enough to give the last finishing touch, has yet done his best to add one brick to the building of the superstructure.

M. Dubi.—Fear or nervous apprehension can never produce, though it may greatly aggravate the symptoms of, organic disease.

A CURIOUS COMPLICATION IN A MIDWIFERY CASE.

To the Editor of THE LANCET.

SIR,—The following case may be of sufficient interest to be placed before the readers of THE LANCET.

Mrs. F——, aged twenty-seven, was some time ago confined of still-born male twins at the eighth month. When first seen by me, twelve hours before labour commenced, she complained of pain in the right side. On physical examination externally, I found the uterus enormously distended, with a projection to the right of its fundus, which was hard and tender; the fœtal hearts were not audible. At 11 A.M. next day (fifteen hours later) there were distinct labour pains; the os was dilated to the size of a shilling, and the head of the fœtus was believed to be presenting. At 6 P.M. the os was almost fully dilated, but no presentation could be felt. At 7 P.M., as there had been no advance, and the membranes were tense and protruding through the nearly dilated os, I ruptured them, expecting to hasten labour by so doing, when something tough, which was diagnosed to be the breech, descended and impinged on the finger. Having waited some time with the patient, and there having been no advance in the labour, the os remaining immovable, I left. I was, however, again summoned to the patient at 10.30 P.M., when on arrival I found that another sac of membranes had ruptured, and that a stream of liquor amnii, extending one or two yards from the bed, had escaped, literally soaking the bedclothes. Examining per vaginam, I found the os fully dilated; but my finger impinged on a third sac, thin this time, with the vertex of the fœtus above it; having ruptured it, the head descended in the second position. The following morning at 2.30 the first child was born, and immediately afterwards the second, feet foremost, and with it a bag of membranes, which I ruptured, but not till it had protruded from the vulva.

In this case there appears to have been four sacs of membranes to two fœtuses; but on inquiring for the placenta later on, I found that it had unfortunately been destroyed; it might have been interesting to have examined it. The following facts seem to me to be of interest: (1) that there appear to have been four sets of membranes, and (2) that the second sac was mistaken for the breech, which, however, was not finally diagnosed till all other imaginary presentations had been rejected.

I am, Sir, yours faithfully,

Newhaven, Jan. 4th, 1886. ED. TONGUE YEATES, L.R.C.S.I., &c.

A LARGE NEW-BORN INFANT.

To the Editor of THE LANCET.

SIR,—On Feb. 6th I attended Mary B——, aged forty-four, in her twelfth confinement. After a labour of five hours, with very strong pains all the time, the child, a female, was born, weighing directly after birth 13¼ lb. The mother also seems to have a large fibroid. She is much exhausted by the labour, but otherwise is doing well.

I am, Sir, yours truly,

Guy's Hospital, Feb. 10th, 1886. HERBERT V. RAKE (extern).

PLACENTA PRÆVIA; TWINS.

To the Editor of THE LANCET.

SIR,—I forward for insertion particulars of two cases. I have neither seen nor heard of similar ones, and therefore think they are worth bringing before the profession through the medium of THE LANCET.

On Oct. 22nd, 1883, I was called to see Mrs. G——, aged forty-two, the mother of a family, who was then in her seventh month of pregnancy, and had been taken with severe flooding. On questioning her I learned that she had had several attacks of flooding prior to that date. On examination, I found it to be a case of placenta prævia. I plugged the vagina, administered the usual remedies in such cases, and ordered perfect quietness, acquainting the husband with the nature of the case and its probable result. Next day I removed the plug, and found everything quiet; there was no further hæmorrhage. On the 26th I was again sent for, the patient having had another attack of flooding. I told the husband it would be necessary to deliver her, and requested him to obtain assistance. He called on my friend, Dr. Thomas O'Reilly, one of our oldest practitioners, who wrote to me saying he would call on me at 7 A.M. next day, being unable from pressure of business to see me the same evening. Next morning we called to see the patient. Dr. O'Reilly verified my diagnosis, and, having previously informed the husband and everything being in readiness, we proceeded to deliver. Having pushed the placenta aside and ruptured the membranes, I found, to my astonishment, that I had to encounter a regular mass of hands and arms. I remarked that I thought there was more than one fœtus, and finally succeeded in seizing a foot and delivering a child; after a little manipulation, Dr. O'Reilly brought about respiration. As I was positive that I had felt more than two hands, I again explored the uterus and discovered a second child, which, after the membranes had been ruptured, was delivered with little difficulty, its birth having been preceded by the placenta belonging to the first child. The second placenta was then removed. Both children were respiring well, and the mother had not apparently suffered as much from the shock as I had anticipated. I need hardly say my attention was thenceforward directed principally to the mother. That evening her temperature and pulse were rising somewhat. She slept a little during the day and the same evening. Next morning the pulse had risen to 130 and the temperature to 104°. During the two following days (28th and 29th) the pulse and temperature kept at about the same elevation. The flow was extremely scanty. The patient did not complain of much tenderness.—Oct. 30th: Pulse 135; temperature 105°.—31st: Pulse 110; temperature 101·5°.—Nov. 1st: Pulse 95; temperature 100·5°; the patient felt pretty comfortable.—2nd: Pulse 85; temperature 99·5°. Next day I was summoned to see the patient before my usual time of calling, as she had severe hæmorrhage. On my arrival, I found her almost moribund. She died about noon. She had slept well the previous night, and had taken tea and toast for breakfast that morning, as she felt very well. I had noticed when I first examined the patient that her veins, especially about the labia, were in an extremely varicose condition, and this may to a certain extent account for the fatal result when everything looked favourable on the seventh day after delivery. Both children lived and thrived well until the following summer, when they succumbed to cholera infantum.

I look upon this case as a unique one. In an extensive midwifery practice of twenty years it was the first case of placenta prævia I had met with, and I have not seen a similar case recorded. Placenta prævia with a single child is bad enough; but with twins it is so much worse that the nearly successful issue is, I think, worth being recorded.

I am, Sir, yours truly,

CHARLES J. S. DIGGES, M.R.C.S., &c.

St. Louis, Mo., U.S.A., Oct. 29th, 1885.

"PSORIASIS ECZÉMATEUSE."

To the Editor of THE LANCET.

SIR,—I should be very grateful to my professional *confrères* for any suggestions as to treatment in the following case.

A lady, aged about sixty, has suffered for the last eight months from what the French style "psoriasis eczémateuse." It first made its appearance as a red spot on the finger under the wedding ring last summer, from which time it has gradually spread over the entire palmar surfaces of both hands, the exterior surfaces of the digits, and to some extent that of the metacarpus. The hands at first presented the following appearance:—Epidermis generally thickened, and peeling in large, dry flakes, from which, with forceps and scissors, the shape of the fingers might be removed, the cutis underneath being much reddened and hyperæmic. Under treatment, the large flakes gave place to more of a fine branny desquamation. In the flexures of the palms there have been large cracks, running along the whole width of the hand, and rendering extension difficult and painful, and all the time there has been more or less loss of tactile sensation, apparently owing merely to the thickened epidermis. The disease is quite dry, and devoid of moisture or weeping; and although limiting itself to the hands, there is something of a similar nature about the toes and scalp. General health good. No specific history; no rheumatic or gouty diathesis; no albumen or sugar in the urine. The only previous ailment appears to have been an eczematous ulceration of one leg. Mercurials in all forms and combinations, lead, zinc, salicylic acid, boracic acid, and liquor carbonis detergens have been used both in lotions and ointments; but improvement goes no further than the lessening of the thickness of the flakes and of the amount of desquamation. Internally, iodide of potassium, Easton's syrup, and arsenic have been used.—Yours truly,

Jan. 26th, 1886. SANS SUCCÈS.

WARLOMONT'S MANUAL OF ANIMAL VACCINATION.

To the Editor of THE LANCET.

SIR,—The review with which you this week favour my translation of the above work is likely to create some very erroneous impressions, and the hasty conclusions drawn are scarcely worthy of THE LANCET. I must ask you therefore, in common fairness, to be allowed to correct a few of the mistakes made by the reviewer, whom I would remind that ere a man condemns a book for its want of "exact evidence" he should himself take the trouble to make *exact quotations*.

The statement that "500 cases of vaccination met with 499 successes" should have been 479 successes, or a proportion of 96 per cent. Then, Dr. Allard did not obtain "sixteen vesicles out of every hundred," but *sixteen vesicles out of a total of forty-four insertions*, the stored calf-lymph used having taken "eighty-six days" (from Oct. 6th to Dec. 31st) in transmission to the tropics, and having been subjected to a "temperature rising, even in the cases and trunks, to from 28° to 30°" (Centigrade). The reviewer then says this is "a result far below the success obtained with calf-lymph produced in this country"—hardly a fair statement, considering the conditions (at Vivi, Congo) and the length of time intervening between the collection and insertion of the vaccine. Then, the translator is credited with something which he has never written. I never objected to the vaccination-lancet being "used for other purposes." I object to the use of the lancet *at all;* and I maintain, as a matter of fact, that the majority of practitioners do *not* use that "reasonable care" in cleansing their lancets which could alone justify the use of any instrument in more than a single case of vaccination. Again, I have never stated that its "unnecessary sharpness is incapable of remedy." The unnecessary sharpness is one of the attributes of this careless reviewer, who would do well to take a few lessons in accuracy ere he dares to say that a purely scientific book "can scarcely claim to rank as a scientific work." The reviewer has omitted to note the discussion of certain experiments in connexion with vaccino-syphilis, which have recently been prominently quoted, as proof of the truth of an as yet unproved hypothesis. I have the private admission of the best authority on this matter that the "'proof' may not be absolute." I say *it is not absolute;* nor is it scientific. At present it is merely clinical.

Trusting you will do Dr. Warlomont and myself the justice to insert this letter in your next issue,

I remain, Sir, your obedient servant,

ARTHUR J. HARRIES.

(Translator and Editor of Warlomont's Manual of Animal Vaccination.)

Pall Mall East, S.W., Feb. 13th, 1886.

"*" We gladly make the numerical corrections to which Dr. Harries directs attention, but the argument remains the same. Reference to Dr. Allard's experience was made simply because in this instance the insertion success was given. A statement of success which does not include insertion success is of much less value. Dr. Harries appears to be unnecessarily severe in his remarks upon our review. We would desire to call his attention to the following:—

In his letter he states:	In his book, p. 163, we find:
"Then the translator is credited with something he has never written. I never objected to the lancet being used for other purposes."	"Objections to the lancet:—Probably used for operations other than vaccination."
"Again, I never stated that its unnecessary sharpness is incapable of remedy."	"As a rule, a lancet is too sharp for efficient vaccination."

ED. L.

Mr. R. G. Patterson, M.B.—Sédillot's 'Contributions à la Chirurgie,' 1868, vol. ii.

CHRONIC URTICARIA.

To the Editor of THE LANCET.

SIR,—Here is an *opprobrium medicorum*. Will any professional brother assist me? It is a case of chronic urticaria. The patient had an attack of subacute rheumatism in September last, and the rash first made its appearance then. The rheumatism has quite left him for several weeks, but the rash keeps coming and going; or, rather, I should say, it did keep coming and going, but it is now quite permanent, and covers his body in large crescentic patches from the head to the feet. The irritation is very severe at times, utterly destroying sleep, and rendering the patient's life miserable. I have prescribed various alkalies and salines, rhubarb and soda, soda and nux vomica, potass and nux vomica, iodide of potassium, bromide of potassium, acids and nux, quinine and acids, quinine and alkalies, colchicum and alkalies, belladonna and alkalies, serpentaria with soda and carbonate of magnesia, Fowler's solution of arsenic, bismuth, bismuth with soda and hydrocyanic acid, Donovan's solution. Externally: Baths of various kinds, soda baths, bran baths, lotions of acetate of lead and ammonia, acetate of lead and spirit, bichloride of mercury, oxide of zinc, carbolic acid, Condy's fluid, borax, chlorate of potass. Some of these have afforded relief for a time, but the rash always returns. I have consulted two eminent London physicians—one of special repute in such cases—but to no advantage. I may as well add that the patient has been carefully looked after in regard to diet, and that he wears silk underclothing.

Can anyone assist me in the treatment of this case? If so, they will confer a very great favour upon my afflicted patient, and ensure the gratitude of

Yours truly,

Park-road, N.W., Feb. 17th, 1886. J. BRISBANE, M.D.

NEW MUFF-WARMER.

MR. F. J. HEDGCOCK, surgical instrument maker, of 138, Grosvenor-park, Camberwell, S.E., has introduced to the notice of the profession a new muff-warmer. The body is made of block tin, covered first with flannel, and then with plush of various colours, and fitted with a plated screw nozzle. This, when filled with boiling water and carried in the muff, will keep warm for about three hours, and will be found a useful preventive of chilblains for lady patients.

Mr. E. Wright.—In the course of a few days.

"FRIENDLY SOCIETIES' MEDICAL INSTITUTIONS."

To the Editor of THE LANCET.

SIR,—In your issue of the 30th ult. a letter appeared signed "Fairplay," and also some other correspondence, on the above subject. For nearly two years I have acted as medical officer to a very large institution of this kind, and think it but justice to state that all are not to be measured by the same standard. I have always found the committee ready to act in a spirit of kindly co-operation, with a desire to render (whilst they also expect to receive) the courtesy dictated by common sense. They are mostly just and intelligent men; and though I must admit having on rare occasions received incivility from members, most of them show great consideration for the "doctor," in trying to save him as much annoyance as possible. On the part of the committee there has been no want of liberality, but, on the contrary, a strong wish expressed that the remuneration should be sufficient to enable the medical officer to maintain his position as a professional man and at the same time uphold the credit of the institution. With regard to the well-to-do members, they are only admitted on the condition that they belong to some registered society; consequently, they have worked their way up, and is it fair that they should be excluded from the society which they helped to found, and from benefits which their own providence and enterprise have obtained, even though they may at last be independent of them?

I sincerely sympathise with "Fairplay" in his unpleasant experience, and hope that the publicity given to both sides of the matter will induce all these institutions to strive after a much higher standard, as only thus can they command public sympathy and conciliate professional regard. I am, Sir, yours faithfully,

Feb. 16th, 1886. MEDICAL OFFICER (F.S.M.I.).

Mr. P. B. Stubbs.—The name will appear in the next official list.

Mr. W. T. Brooks.—In an early number.

"SYMPATHETIC IRRITATION OF THE PNEUMOGASTRIC."

To the Editor of THE LANCET.

SIR,—Mr. Tower-Smith's letter of to-day's date recalled to mind your annotation (Oct. 3rd, 1885, p. 630) on Dr. Harkin's treatment for cholera. It certainly seems hopeful. I would suggest the trial of a seton in place of a blister, if the latter should fail. If the treatment indicated should be adopted, it would, of course, be extremely interesting to learn the result. I am, Sir, yours truly,

R. J. SHEPHERD, M.D.

St. Olave's Union Infirmary, Rotherhithe, S.E., Feb. 13th, 1886.

I. Burton may refer to the report of the Obstetrical Society in our present number.

SEA-SICKNESS.

To the Editor of THE LANCET.

SIR,—Years ago most passengers by sea spoke of the plan mentioned in your last week's issue (p. 335) as the old and only good thing for sea-sickness. From observation of hundreds of cases, I believe that the benefit arises entirely from the horizontal position, and that lying "head to bow" does not diminish the severity of the illness. After trying most remedies, I found most benefit from chloroform applications to the auditory meatus. I am, Sir, yours truly,

Feb. 16th, 1886. M.B., C.M.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir Spencer Wells, London; Dr. Mo e Madden, Dublin; Dr. Dyce Duckworth, London; Surg.-Gen. Hutchinson; Mr. Sutton, London; Dr. Harkin, Belfast; Mr. Wharton Jones, Ventnor; Mr. Allbutt, Leeds; Dr. S. West, London; Dr. Brisbane, London; Messrs. Welford; Mr. Thomas Cooke, London; Mr. H. S. Wright, Acton; Mr. Woodland, London; M. Dani, London; Dr. Charteris, Duncorval; Dr. Hughes Bennett, London; Mr. W. T. Brooke, Oxford; Mr Auld, Wick; Dr. Slayter, Halifax, N.S.; Dr. Harries, London; Dr. Collier, Lincoln; Dr. Wade, Birmingham; Mr. Haslam, Birmingham; Dr. A. Wilson, Leytonstone; Dr. O. Sturges, London; Mr. J. S. Wood, Tooting; Mr. N. B. Davies, Lincoln; Mr. B. Robinson, Manchester; Dr. R. J. Shepherd, London; Mr. Cartmel, Manchester; Mr. S. Snell, Sheffield; Dr. King, Virginia; Mrs. Sullivan, Burton-on-Trent; Messrs. Richardson and Co., Leicester; Mr. Burke, Hammersmith; Mr. Unsworth, Liverpool; Mr. Grime, Blackburn; Messrs. Haller and Co.; Mr. Turner, Colchester; Mr. Robinson, Pendleton; Mr. Crewes, Truro; Dr. Troy, Maryland, U.S.A.; Dr. Millman, Kingston; Mr. Hunter, Birmingham; Mr. Galvavres, Ghadechi; Mr. Proud, Hartlepool; Mr. Hogg, London; Mr. Ricketts, Oldham; Mr. Buchan, Plymouth; Mr. Benton, London; Mr. Walsh, New Ross; Dr. Huggard, Davos; Messrs. Nelson and Sons, Leeds; Dr. S. L. Abbot, Massachusetts; Mr. Jos. Williams, Brentford; Dr. Dowding, Bournemouth; Mr. C. H. Abbott, Braintree; Mr. Bonton, London; Mr. Edwards, Harrold; Mr. Chavasse, Birmingham; Mr. B. Harrison Hull; Mr. Glascote; Mr. Bickerton, Liverpool; Mr. Clutton, London; Mr. Craig, Llandudno; Dr. Lycett, Wolverhampton; Messrs. Treherne and Co.; Messrs. Mead and Co., Bristol; Dr. Richmond, Greenock; Mr. Lloyd, London; Mr. Soper, Dartmouth; Dr. Ridge, Enfield; Mr. Poole, Maldon; Dr. Ashworth, Halstead; Mr. Woodland, London; Mr. Allden, Shirley; Mr. Terry, Winchester; Messrs. Bates and Co., London; Mr. St. V. Mercier, London; Mr. Wheatley, London; A Reader of THE LANCET; Y.; A F.S.M.I.; Fiat Justitia; P. E. J.; Ajax.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Eberle; Messrs. Slinger and Son, York; Mr. Fry, Swindon; Mr. Watson, Great Yarmouth; Dr. Leeson, Brighton; Mr. Gray, Exeter; Mr. Robinson, Sunderland; Mr. Mostin, St. Mary Church; Miss Pudney, Earl's Colne; Dr. Purcell, London; Mr. Lumley, London; Mr. Achison, New Ross; Mr. Lownds, Newcastle; Mr. Browne, Kensington; Mr. Thomas, Llanelly; Mr. Lester, Arlesey; Mr. Burton, Notts; Dr. Davies, Sherborne; Mr. Salmon, London; Miss Crawhall, Durham; Mr. Stewart, Bognor; Mr. Brockelbank, Liverpool; Mr. Skipworth; Mrs. Gard, London; Mr. Benton, London; Mr. Whitaker, Derby; Mr. Dickson, Northampton; Mr. Hall, Ross; Mr. Landale, Bath; Mr. St. Dalmas, Leicester; Mr. Jacoby, St. Austell; Mr. Logan, Glasgow; Mr. Hay, Hull; Mr. Haggins, Malvern; Miss Daniel, Kinsale; Mr. Orchard, Notting-hill; Dr. O'Flaherty; Mr. Simons, Oxford; Mr. Powell, London; Mrs. Barker, Worthing; M.R.C.S.; James; Othmar; Alpha, Birmingham; Medicus, Haverfordwest; Medicus, Liverpool; Advertiser, Hulme; Matron, Sheffield; M.D., Holloway; Medicus, Stockport; The Manager, Bushey Hall; Medicus, Crediton; Q. X. Z., Edinburgh; Stethoscope; W. H. S.; C. W., Ludlow; Bthmold, Sheffield; G. W. R., Stourbridge; J. H.; Medicus, Glasgow; Medicus, Wainfleet; Medicus, Heckmondwike.

Manchester Examiner, Weston-super-Mare Gazette, Kidderminster Sun, Liverpool Mercury, Imperial Review, Charity Record, &c., have been received.

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